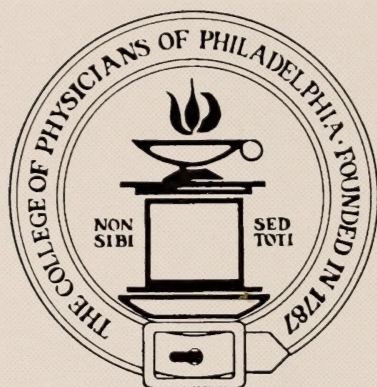


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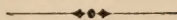
'The care of the human mind is the most noble branch of medicine.—GROTIUS.



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AMERICAN JOURNAL OF INSANITY, FOR JULY, 1873.

ON EPILEPTIC INSANITY.

BY M. G. ECHEVERRIA, M. D.

[Read before the Association of Medical Superintendents of American Institutions for the Insane, Baltimore, Md., May 28, 1873.]

The questions relating to the history of epilepsy are fraught with interest to us all. For myself, I acknowledge that they have always offered a special attraction; and I propose to embrace in this rapid sketch, the characteristic traits of one of the most perplexing among the multiple phases of the convulsive neurosis. Let me remark, at this point, that I shall be obliged to embody here some of the assertions I have recently advanced in the AMERICAN JOURNAL OF INSANITY, on account of their interest, and as the establishment of the facts referred to, is essential to the conclusions I may draw on the clinical and legal aspects of Epileptic Insanity.

The paroxysmal recurrence of epilepsy constitutes one of its chief pathognomonic features, and the main elements of the existence of the disease are: unconsciousness, muscular convulsions, and mental disturbance. The concatenation of these three fundamental phenomena does not appear with invariable distinctness, in as much as one or more of them may acquire such a prom-

inence as to impart a specific character to the epileptic paroxysm. None of these isolated symptoms could, however, suffice by itself to prove epilepsy, any more than one single mad act could prove insanity. Nevertheless, in every case unconsciousness displays itself conspicuously, assuming, in some instances, such an absolute prominence as to constitute almost the whole epileptic fit,—on which account I regard unconsciousness as the principal exponent of the epileptic malady, often making its detection difficult, and rendering its recognition questionable.

It is not my purpose to discuss the psychical state which is generally coupled with the ordinary epileptic attacks, but to confine my remarks mainly to the unsoundness of mind that may originate from the convulsive neurosis, and which differs materially from the other paroxysmal exhibitions of epilepsy. I designate the intellectual trouble in question by the name of *Epileptic Insanity*, first suggested in this particular sense, as I believe, by Morel, and thereafter employed in a similar way by Falret, Delasiauve, and other alienists.

Epileptic Insanity holds a separate place in almost every one of the rational and practical classifications of insanity, put forward by the leading authors of our day, on *Psychological Medicine*; consequently, it is in vain to dwell upon the reasons for such an universally accepted distinction. Whatever might be the principles or views selected as foundations for each of the classifications, it is obvious that epileptic insanity has appeared to their respective authors, as distinctive, as for example, general paresis, and hence the separate division they have assigned to it. Notwithstanding this common and implicit agreement to admit the individuality of epileptic insanity, it is indeed striking to see the con-

flict of opinions and the doubts, which have been expressed by several alienists, when it has become necessary to decide upon its existence, and to trace satisfactorily its origin to the epileptic malady. We usually seek for the explanation of unknown phenomena in speculative reasoning, in accordance with the doctrines we profess; the conflict of opinions and the doubts just noticed proceed from no other source, for they could not arise from any practical consideration and study of well authenticated and carefully recorded cases of epilepsy. There is scarcely one chapter in the history of epilepsy free from speculations and routine principles, and the one under consideration exhibits no departure from this practice, so opposite to true scientific progress in the treatment and management of epileptics. Furthermore, epileptics are not only outcasts from society, but also from almost every medical institution; and these facts prevent the dissemination of sound views on any of the unsettled questions regarding their dreadful disease.

I can but feel that I should acknowledge how much I am indebted for valuable aid in my researches, to the writings of Delasiauve, Morel, Falret, Baillarger, Trousseau, Boileau de Castelnau, Legrand du Saulle and other French alienists, who have contributed so efficiently to elucidate the study of epilepsy, in its relations to medical jurisprudence. However, the conclusions which I would present for the consideration of the Association, are the result of my personal experience for a period of over thirteen years, with more than 700 epileptics, whose histories I have clinically analyzed and carefully recorded in 532 cases, of which 267 were of manifest epileptic insanity. Having made these preliminary remarks, let me pass to examine the principal points of the question we have to consider, namely: The Etiological Elements of Epileptic Insanity, its

Relations to the Ordinary Fits, Characteristic Features, and Medico-Legal Aspects.

It is asserted by almost every standard authority on insanity, that epilepsy leads to mental unsoundness. Esquirol never saw insanity superinduce epilepsy, but Musset, Boileau de Castelnau and other writers, declare in less absolute terms, that the fact is of rare occurrence. My observation fully concurs with that of Esquirol. The statistics of 532 epileptics and the histories of the numerous lunatics who have come under my care, distinctly prove, that in every instance, insanity was preceded by a more or less prolonged recurrence of some kind of fits. I have of course frequently met with epileptiform convulsions as the epiphenomena of general paresis, melancholia, dementia and acute mania; yet, I repeat it, that in no instance have I recognized the epileptic disease as following insanity. These results are strengthened considerably by the experience of one of our most competent colleagues, Dr. John P. Gray, with some eight thousand lunatics, among whom he has observed epileptiform convulsions under similar circumstances, to those I have just mentioned, and also attacks of mania, or melancholia, superseding the epileptic fits for a more or less prolonged period, and which were mistaken, in their true nature, until the antecedent history of the individual became known. We may, therefore, conclude as previously asserted, that epilepsy leads to insanity, the contrary proposition resting on no positive experience.

The 267 cases of epileptic insanity, comprised 141 males and 126 females. The predisposing or determining causes of the disease, were unknown in 18 males and 22 females, thus leaving 123 males and 104 females whose original source of the disorder could be distinctly ascertained. Insanity, paralysis, or epilepsy,

Epilepsy or paralysis was observed in the brothers or cousins, but among the ancestors of 23 males and 16 females, no form of neurosis existed.

was noticed among the ancestors of 37 males and 46 females; epilepsy or paralysis was observed in the brothers or cousins of others, but among the ancestors of 23 males and 16 females, no form of neurosis existed. Intemperance in the parents, was observed in 29 males and 21 females: lastly, the consanguineous intermarriage of the parents is recorded in two cases among males, and one among females. The hereditary predisposition originated from the maternal side in 18 of the 37 males, and in 25 of the 46 females; from the paternal side in 10 males and 15 females; and in the remaining cases, 9 males and 6 females, the families of both parents were tainted with a nervous diathesis. Phthisis was noted among the ancestors of the 37 males, in 11 cases, and in 13 of the 46 females; consumptive brothers were counted seven times among the males stained with the hereditary predisposition, and nine times among the females. I have referred to phthisis because it is a common sequel or accompaniment of epilepsy, and, without holding any extreme views on the subject, I am led to believe from my experience, corresponding with that of Vanderkolk and other authors, that insanity may appear transformed, from one to another generation, into epilepsy or phthisis, or *vice-versa*. The etiology of criminal psychosis strengthens this assertion in reference to the transmission of an insane temperament by phthisis. Maudsley says:

“In addition to entire absence, or perversion of moral sense, without feelings of remorse, which experience of habitual criminals brings prominently out, other important facts which we learn from an investigation of their family histories are, that a considerable proportion of them are weak-minded or epileptic, or become insane, or that they spring from families in which insanity, epilepsy or some other neurosis exists; and that the diseases from which they suffer, and of which they die, are chiefly tubercular diseases and

diseases of the nervous system. Crime is not, then, always a simple affair of yielding to an evil impulse or a vicious passion, which might be checked were ordinary control exercised; it is clearly sometimes the result of a neurosis which has close relations of nature and descent to other neuroses, especially the epileptic and the insane neuroses; and this neurosis is the physical result of physiological law of production and evolution.”*

I have quoted this passage at such a length, on account of its general bearings on the subject we discuss.

The known determining causes were distributed among the 86 males and the 58 females, as follows:

Mental disturbance, 9 males, 6 females.

Fatigue and overwork, 5 males.

Grief, 3 males, 6 females.

Fright, 2 males, 5 females.

Insolation, 4 males.

Injuries to the head, 23 males, 11 females.

Intemperance, 29 males, 12 females.

Childbirth, 1.

Pregnancy, 1.

Excessive punishment, 1 male.

Uterine trouble, 14.

Syphilis, 5 males, 1 female.

Fever, 1 male.

Scarlatina, 1 male.

Anger, 1 male.

The enumeration I have made of the predisposing and determining causes shows, that those which seem the most prominent in bringing about epileptic insanity are: an active hereditary predisposition, intemperance, and injuries to the head. The agency of hereditary predisposition operates with most potency during adolescence, namely, from 14 to 25 years, but the two other prominent accidental causes are mainly referrible in their supervention, to adult and old age. It is a well established fact that hereditary epilepsy commonly displays itself during infancy, although the baneful effects of the

* *The Journal of Mental Science*, Oct., 1872, p. 408, No. LXXXIII.

spasmodic neurosis may often remain latent throughout this period, to break out in later childhood or adolescence. Another point not to be forgotten is, that when the onset of epilepsy dates from childhood, the decay of the intellectual faculties does not usually progress rapidly, insanity not becoming thereby fully developed until puberty; but excessive irritability, or irregularities in the intellectual and moral conditions of the individual, with deficient memory, render themselves conspicuous throughout this period, though not actually constituting a state of insanity. These are, indeed, the most helpless cases, for they usually depend on some congenital malorganization and admit of no cure, though a favorable modification of the mental trouble with a comparatively great relief of the epileptic paroxysms, may be afforded by persevering and judicious treatment. I thus cursorily allude to this fact on account of the wide-spread popular belief, unfortunately entertained by some physicians, that epileptic children should be left to the care of nature, as the recuperative powers and the change of puberty will achieve their cure, an erroneous expectation which I never have seen fulfilled. No principle has received a greater sanction from experience, than that the earlier the age at which epilepsy springs up, the deeper it undermines the organic and moral constitution, and the more disastrous are its results.

Turning to epileptic insanity, I must add, that in the cases of congenital epilepsy under my observation, embracing those where the fits broke out immediately or within a short period after birth, idiocy has also been originated by some disorder of the nervous system, either innate or developed in early infancy, before there existed any manifestation of cerebral activity. Under these circumstances, some local paralysis, or deformity,

or distortion of the limbs has attended the epilepsy, and such individuals were, correctly speaking, idiotic-epileptics. The shape of their skulls, which on several occasions I have obtained with the *conformateur*, used by hatters, has always been very unsymmetrical, with proportions generally ranging below the smallest normal standard. Unnaturally large heads with prominent eyes, have been noticed mainly among those whose early history exhibited the existence of hydrocephalus, or who were deeply tainted with rachitis or a scrofulous diathesis, and among whom, deformities and distortions of the body or limbs, and defective development of the teeth, were most striking.

The high proportion of cases ascribed to intemperance is, in a great measure, due to the numerous patients proceeding from the lower classes and dregs of the city, received at the hospital. On this account, I am inclined to think that in several of these instances intemperance, instead of operating alone, has helped efficiently some other unrecognized agency, productive of epilepsy. I am satisfied, however, that whether inducing the disease without the intervention of other causes, or whether associated with any of them, intemperance ranks as one of the most pernicious influences in the production of epileptic insanity.

Injuries to the head prove to be a very prolific cause of epilepsy, with its concomitant moral and intellectual changes; therefore it is not surprising that epileptic insanity should be frequently the outgrowth of a cause, which acts no less powerfully in originating insanity, independent of epilepsy. The influence of intemperance and injury to the head are very often combined, and their dreadful effects may be heightened, by the addition of hereditary predisposition, as I had occasion to observe in a carriage driver, the offspring of an insane

grandfather and a phthisical mother, who became affected with epileptic vertigo and mania, after severe contusion of the head, by being thrown from a carriage. This patient was also very intemperate, and in his fits of mania would become extremely dangerous. More impressive yet is the case of a woman with epileptic mania, accompanied by the most uncontrollable homicidal impulses, who became epileptic immediately after her first confinement, and whose father, an epileptic and inveterate drunkard, murdered his wife and two children, during one of his fits, for which crime he was condemned to imprisonment for life in Ohio.

Without exaggerating the medico-legal value that may attach to the foregoing etiological conditions, I have deemed it proper to point out the essential part they may have in the causation of epileptic insanity, a question which may present itself for us, as medical experts, to determine. Before leaving this subject of etiology, I must notice the statement advanced by Reynolds, that hereditary taint is not essential to the production of mental failure, in epilepsy. The conclusion is arrived at upon the analysis of 34 cases, and as Reynolds himself acknowledges, "the numbers represented in the above table are too small to establish any doctrine with regard to the degrees of mental failure and their relation to hereditary taint; but they are amply sufficient to prove that there is no necessary dependence of the one upon the other."* My statistics contradict the conclusions just quoted from the distinguished English author. Out of 135 patients, in which the hereditary taint was known and confessed, 83 displayed insanity, and the 52 remaining, some peculiarity in their character, or a manifest weakness of mind, with defective memory; consequently it is very consistent with reason to believe that there must be a dependence between hereditary taint

*Epilepsy; its Symptoms, Treatment, &c. London, 1861, p. 163.

and mental failure, although the presence of the latter does not necessarily involve the existence of the former, which is not an absolutely essential condition of mental failure, since it may arise from any other etiological element. I may say lastly, that Reynolds' conclusions on this important point are also disproved by the experience of every alienist who has made a special study of epilepsy.

The relations of insanity to the epileptic fit, is a subject which has been investigated by Esquirol, Calmeil, Delasiauve, Morel, Cavalier and others. Falret has endeavored to reconcile the views held by the three last named alienists, with those at which he has himself arrived, and asserts, that: "delirium chiefly occurs as a consequence of epileptic attacks recurring at short intervals, after a prolonged suspension of the disease."* This is very true, but there are two other prominent conditions, overlooked by Falret, in which insanity frequently occurs without any distinct relation to the length of intervals between the attacks, namely: after nocturnal fits, and after seizures of *petit mal*. The latter are themselves more pernicious to the intellectual faculties, than any other attacks. Were I to express my views on this important question, I should feel inclined to assert, that the most violent convulsive forms are surely less apt to occur with concomitant insanity, whereas, on the contrary, the vertiginous or hardly noticeable fits of *petit mal* frequently occur along with more or less intellectual derangement. At the same time the association of *petit mal* and *grand mal*, renders the supervention of insanity, relatively more common.

It would be erroneous to suppose that insanity sets in regularly after the fit. Disregarding for the present those instances of larvated or masked epilepsy where there is no visible fit, there are again other cases in

* *Etat Mental des Epileptiques*. Paris, 1861, p. 62.

which the fit is preceded, not by an intellectual aura, but by a more or less prolonged mania, frequently of the most furious character, as has been particularly noticed by Delasiauve, Cavalier, Falret and others, and as I have myself observed on many occasions. I have also met with insanity originating after the very first epileptic seizure, and recurring regularly thereafter. This has occurred principally among adults, and under such circumstances, a traumatic injury to the head, intemperance, or syphilis have been the ordinary causes of the disease. The phenomenon has also attended epileptic attacks, followed by temporary paralysis. The association of epilepsy and paralysis evidently superinduces mental impairment, for I have never failed to detect throughout the progress of such cases, a gradual, though obvious decay of the intellectual faculties, and a state of permanent dementia after the maniacal exacerbations accompanying the fits. I have recorded the fact particularly in 248 cases, but 123 of them are excluded from the 532 serving as the basis of the statistical results herein presented, because epileptiform convulsions and paralysis were displayed from the very inception of the disease, and therefore I did not regard them as examples of genuine epilepsy. It is worthy of remark, that my observations in this respect agree with those of Sir Henry Holland,* extending over a practice of forty years, and as expressed in his opinion upon the mental competency of Mr. Parish.

Epileptic insanity, as I have studied it, may display itself like all other varieties of insanity, in an intermittent, a remittent, and a continuous form. The intermittent form is characterized by periodical attacks, breaking out with intervals of variable regularity. In the remittent form, there is no complete recovery of

* Opinions upon the Mental Competency of Mr. Parish: New York, 1857, p. 570.

intellectual soundness between the paroxysms or maniacal exacerbations; and lastly, in the continuous form, the mental trouble exhibits a permanent character, not essentially modified by the recurrence of the fits. In his valuable memoir on the mental state of epileptics, Falret* draws a distinction between the intellectual *grand mal* and the intellectual *petit mal*, indicating thereby a close relation between the psychological and the physical manifestations of the disease. The intellectual *grand mal* corresponds, according to the description I condense from Falret, with the incoherent and violent state commonly described as furious mania. The intellectual *petit mal* may continue, from several hours to several days, constituting an intermediate condition between the irregularities of character which attend the fits, and the highest disturbance of the furious maniacal seizures. This state is mainly disclosed by a great confusion of mind, accompanied with instinctive instantaneous impulses and acts of violence. No sooner has the stupor of the epileptic fit subsided, than the patient laboring under this particular kind of delirium, becomes sullen and deeply dejected, with great confusion of mind and irritability against everything surrounding him. The patient feels an utter inability to collect or fix his thoughts, and to master his will, which is variably displayed, according to the social position of the individual. Epileptics have no energy to overcome these feelings, and seized by a vague anxiety, or hallucination, or an involuntary dread, they leave their homes to wander about without purpose. In the midst of this confusion of mind they recall to their memory the painful past impressions, which spontaneously spring up in their imagination, always the same at every new access; and it is during this terrible condition that such epileptics give themselves up to acts of violence,

* Op. cit. pp. 16-25.

in the most instantaneous, sudden manner, thus committing homicide, suicide, arson, or any other criminal deed, and giving vent to their rage, blindly striking repeated blows at their victims, and fearfully mangling them. After the fit of violence a crisis may take place, the patient either returns to himself, in a sort of instantaneous manner, regaining his consciousness and rendering an imperfect account of his misdeed, or, on the contrary, he escapes, running away in a bewildered state of great agitation. In both cases the very confused recollection, if not the complete oblivion of what has happened, is almost always a striking essential symptom of this mental state, so much resembling the awakening from a dreadful dream. Such are the principal traits of the two conditions delineated by Falret, and which are actually exhibited by the epileptic insane. However, the ingenious distinction between the intellectual *grand mal* and the intellectual *petit mal*, and their respective relation to the corresponding physical conditions of epilepsy, involves, as Delasiauve has already remarked, a connection which is far from being constant. The most fearful fits of rage and frenzy I have witnessed, were superinduced after attacks of simple *petit mal*, and under similar circumstances, fits of furious mania have too repeatedly fallen under my observation, to regard the phenomenon as of exceptional occurrence. But we find also after successive fits of *grand mal*, or of *petit mal*, or of both together, a state of harmless insanity, with the highest degree of melancholia with stupidity, without the violent reactions which, as set forth by Falret, should in the intellectual *grand mal*, exclusively follow the physical *grand mal*. The same negative result not infrequently occurs again in connection with nocturnal paroxysms. In other instances, the epileptic,

without any dejection or stupidity, talks and acts coherently, in an apparently rational manner, but actually without any appreciation of his outward relations; and this change may supervene in connection with diurnal or nocturnal fits, or throughout the paroxysms of cerebral or larvated epilepsy. All these various manifestations, not corresponding to any of the two intellectual varieties proposed by Falret, necessarily shake the foundation of his absolute division. Let me cite some instances sustaining these statements.

A gentleman remains for one or two days after his nocturnal attacks, in an indifferent condition, kneeling in some corner of his bedroom, muttering unintelligible words, and completely irresponsive to any external incitation. These symptoms recur, always the same, with every attack, unless the stupidity be increased in intensity, by a close succession of fits, in which case it becomes impossible to make the patient eat or drink, or to change his position, and he then passes his urine and excrements in his clothing. After remaining two or three days in this sort of cataleptic state he awakes in the morning, very confused and without knowledge of what he has done.

Another man, with a hereditary predisposition derived from his maternal family, has nocturnal attacks every three weeks, preceded by several fits of *petit mal*. He displays, for nearly a week after the nocturnal fits, the most exalted ideas, believing himself a great man, persecuted by people, who want to rob him, and at the same time walks naked about his rooms, committing the most indecorous acts, and daubing himself with his own fæces, on which account he has to be restrained during these fits of insanity.

I presented to my clinic, in 1869, a girl who became epileptic a few days after having been bitten by a dog.

The fits recurred accompanied by tonic spasms of the arms, and were after a year followed, in the interparoxysmal period, by a silly state, alternating with an ecstatic condition, and total suspension of mental power and sensibility. This girl, after a series of fits, tore off, with a hair pin, the gum from the whole alveolar process on the left superior maxillary bone, and pulled out, one after the other, every tooth implanted in it, to wit: the two incisors, the canine, the bicuspid, and the first and second molars which were in a healthy condition. She silently and most deliberately inflicted on herself such fearful injury, without the slightest indication of pain, and would have persisted in tearing out the denuded bone if she had not been prevented by the camisole. None of these examples agree with any of the types presented by Falret, nor did they exhibit any excitement or furor during the clearly intermittent insanity, preceded by seizures of *grand mal*.

I look upon epileptic insanity as one of the manifestations, *per se*, of the spasmodic neurosis, recognizing its essential or primary source, not in the fits, but in the very etiological elements of the disease. The various fits are nothing else but paroxysmal manifestations, which may accompany each other in close sequence, or exist entirely by themselves, separate, though nevertheless depending upon one common etiology. We do not know why, under certain circumstances, we have to contend with fits of *petit mal*, in others with fits of *grand mal*, and in others again with nocturnal attacks; neither can we better explain why the counterpart of these convulsive paroxysms should be characterized by purely cerebral symptoms unattended by any spasmodic phenomena. Moreover, Falret truthfully and unequivocally asserts, that there is but one form of epileptic insanity, in which the delirium and convulsions are not

two distinct maladies, but two diverse manifestations of the same morbid state, which may exist separately or simultaneously, or within short intervals of each other. For all these reasons, instead of attempting to establish an immediate relation of cause to effect—which can not be proved—between the intellectual and the physical paroxysms, I have thought safer to adopt the division of epileptic insanity here proposed, and to consider unconsciousness and the excessive reflex susceptibility, the chief characteristics of epileptic insanity, capable of breaking out, either alone or coupled with any other form of the epileptic malady. In some instances of epileptic insanity, the profound stupidity or the state of pseudo-catalepsy in which the patient is sunk, prevents the reaction of the reflex susceptibility, which underlies the generation of impulsive acts; but I am yet to discover the case of epilepsy where the existence of unconsciousness is not plainly manifest. If we look, on the other hand, at fits where the mental disorder is reduced to a state of delirium, unconsciousness then becomes obvious in the stupor, which Delasiauve has so properly pointed out, as the characteristic accompaniment of epileptic delirium.

The intermittent form of epileptic insanity, generally accompanies the fits; it has often a subsequent occurrence, though it may not rarely herald them; and in other instances the fit breaks out as though it were an intercurrent phenomenon of epileptic insanity. I shall not speak of epileptic mania as it supervenes in clear connection with the fits. We are too familiar with it, and we know, that when directly setting in upon the fit of *grand mal*, the epileptic instantly passes from the clonic stage of the fit into the maniacal, without any intermediate period of sleep, or coma. Let me also notice distinctly, that epileptic mania very seldom lasts

less than two or three hours, and that I have never met with one instance of shorter duration. It also happens, that the maniacal attack, instead of following the fit, is developed one, two, or three days after, and is then usually more prolonged, whereas, in other instances, intermittent epileptic insanity may go on even to its most dreadful stages, without any fit being seen or suspected.

The larvated epilepsy of Morel, obviously corresponds to the intermittent epileptic insanity of my division. The description given by him, and the assertions he has recently made at the Medico-Psychological Society of Paris, on the subject of larvated epilepsy, would lead us to believe, that the occurrence of convulsive attacks always discloses the doubtful epileptic nature of the larvated attacks; or that, as he says: "These kinds of patients, after a more or less prolonged time, arrive at the convulsive attack and die." This is, perhaps, too absolute a statement, for although I have very often met with instances of larvated epilepsy ending in a series of convulsive fits, or *status epilepticus*, I have also seen several others where the nature of the periodical attacks of insanity, with their peculiar characteristics, was rendered unquestionable by the previous existence of other fits, and cases of intermittent epileptic insanity, or larvated epilepsy, which have reached their closing stage, without the supervention of any convulsive attacks, the patients having died from cerebral congestion, in a comatous condition.

The great danger from epileptics, originates from their morbid impulses, more than from their intellectual derangement. The abnormal increase of their reflex faculty makes them act without reflection, and it is from this source that all their misdeeds flow. They react in-

voluntarily to every physical or moral incitation. Their ideas are derived from feelings exaggerated by the hyperæsthetic condition, into which they are carried, and which must necessarily expose them to irresistible acts. These acts are, therefore, always sudden and instantaneous, for any ordinary feeling or impression perceived by a brain so deeply upset in its functional activity, is beyond the control of the will, and gives rise thereby to perverted ideas, automatically developed. Let me further state, that such instantaneous, impulsive acts, are quite distinct from the condition of transitory mania, during which they arise, and with which they should not be confounded. In this respect I agree with Morel, who has most emphatically declared, that there is no such thing as instantaneous insanity, but instantaneous evil acts, in relation to the effects of some kind of mental disease, displayed by the parents of the culprit. I go one step further, and without simply confining their source to heredity, I fasten such instantaneous acts to some unsuspected form of epilepsy, when, by tracing back the history of the individual, we discover indications of the epileptic disease in its hidden varieties, such as nocturnal fits or simple vertigo,—under which category I have seen some very interesting and perplexing cases.* These considerations place transitory mania on the only sound and evident grounds, on which it can be established, without lending ourselves to the prevalent misuse which has been made of it, to exculpate criminals. The fact is furthermore important, to account for the extreme susceptibility of epileptics, and their evil propensities, where insanity has not been fully developed. It is readily recognized that most of the reputed cases of *mania transitoria* prove to be, upon closer investigation, those of unsuspected epilepsy or epileptic insanity. It is also worthy of remark,

* See last April No. AMERICAN JOURNAL OF INSANITY, pp. 514, *et seq.*

that the greater the excitement and incoherence, the less liable will the epileptic maniac be, to commit an assault, or acts of violence, which are usually the offspring of the hallucinations, and perverted feelings underlying the apparently inoffensive and quieter looking forms of epileptic insanity.

It is, indeed, surprising that no special reference whatever, has been made by any author, to the state of unconsciousness, which constitutes one of the chief characteristics of epileptic insanity. And yet, it is easy to find the phenomenon noted in several of the cases reported by Esquirol, Delasiauve, Boileau de Castelnau, Trousseau, Morel, Falret, Legrand de Saulle, and others. The only distinct allusion in reference to this subject appears incidentally in Dr. Ray's classical work on Medical Jurisprudence, where it is stated that: "such loss of consciousness is not so far removed from the psychical impairment ordinarily attributed to epilepsy, as to render its occurrence highly impossible."* This guarded opinion is expressed after remarking that Fyler, Bethel, and Winnemore committed the homicide for which they were tried, in a state of unconsciousness not immediately connected with a fit. There was no evidence that such a condition had been previously observed in Fyler or Bethel, but, as Dr. Ray says, "Winnemore stated, that he once rowed about in a boat on the river several hours, without being conscious of the fact, having been told of it by those who saw him." The proofs of an attack of cerebral epilepsy could not appear more striking than in this brief report. I presented in the last number of the AMERICAN JOURNAL OF INSANITY, a series of cases, in which the state of unconsciousness was very remarkable, occurring after fits of *petit mal*, and nocturnal attacks, and without any relation to the outbreak of a fit. These exam-

* *Medical Jurisprudence of Insanity*. Fifth Edition; 1871: p. 486.

ples are of such cardinal importance, in sustaining the views here advanced, that I beg to be allowed to repeat a brief description of them, to which I will add some other cases.

A young man fell from the top of a ladder fifteen feet high, and became epileptic thereafter. He would, while in conversation, stop suddenly, drop his head and look as if dead, but would regain consciousness in a few seconds, entirely unaware of his condition. One evening, after one of these attacks, he went into the street, took a horse and buggy which he found in front of a house, rode over a mile and a half to his father's grave, pulled the flowers from the bushes planted over it, and brought them home to his mother, whom he invited to take a ride. Being asked where he procured the horse and buggy, he replied that he found them lost in the street. His mother directed him to go forthwith to a livery stable, and there leave the horse and wagon that they might be returned to their owner. He started to do so, but left the horse and buggy for keeping, at a livery stable, as his own. When discovered by the owner, the transaction was looked upon as a larceny, thereby causing great mortification and annoyance to his family. The boy, however, could never account for his conduct, and completely forgot every circumstance connected with it. On another, more recent occasion, he left home after the attack, and while wandering through New York, came across a shipping agent, who engaged him to go as a sailor on board an English vessel starting for London. The agreement was signed, and after leaving almost all his pay, and some of his personal effects, he embarked for England. The captain discovered from the start, that he was no sailor, and finding him very flighty, exempted him from going to the top of the masts, and assigned to him very light

duties. A few days after his departure, on coming out from this state of epileptic insanity, he expressed great surprise at finding himself on board a vessel bound for London, and completely ignorant how he came to be there. The mother discovered, through the police, the departure of her son, and took the necessary steps to have him brought back. He has similar attacks of insanity, after nocturnal paroxysms, or fits of *petit mal*, as described above, but is very rational and gentle in the periods intervening between the paroxysms, during which he is very mischievous, inclined to be constantly running or wandering about, and prone to acts of violence.

A young lady, aged 28, has suffered from severe *grand mal* and *petit mal*, from the age of dentition. Her mother and brother are insane. For the last five years the *grand mal* has occurred only at night, about the menstrual period, and at the same time the fits of *petit mal* have increased in severity. The intellectual faculties of this woman, impaired at this time, display at others, no change beyond the peculiarities and impulsive traits of character, obvious to those only who watch her closely. After the attacks of *petit mal*, she remains in a most curious state, and talks and argues with an acuteness and loquacity not before natural to her; she relates with great correctness passages from the Bible, or writes the most strange and incoherent letters. While in this condition, she is constantly acting as though she were listening to something, and frequently stops in the conversation, to assume such attitudes; she also becomes very destructive, often strikes at those who touch her, and does not seem to recognize or remember the names of persons familiar to her, though replying pointedly, and coherently to any of their remarks. This state persists for one or two days

before the nocturnal attack, after which she feels depressed, with no recollection whatever of what she has done before.

[A few days after this paper was read before the Association, I was requested to examine into the mental condition of a boy, aged eighteen, belonging to a respectable family, who had been arrested at three o'clock in the morning, and committed to the Tombs. It seems that, as he was wandering in an unconscious state through one of the city avenues at this late hour, a professional thief took hold of him, and a few moments after, robbed a passer by of his silver watch and pocket book, which he handed to the boy, telling him to run away and come back with them; the boy did as directed, and delivered the stolen property, in the most unconcerned manner, to the policeman who had come to the spot at the cries of "thief." On being arrested, he asserted he had no knowledge of what had occurred, and remained utterly indifferent to the criminal charge brought against him. I found upon inquiry, that his paternal grandfather died paralytic, one of his maternal uncles was insane, and his father, a painter of talent, died of Bright's disease, superinduced by excessive drinking. This boy was seized, at the age of eleven, with fainting fits, and subsequently with attacks of *grand mal*, during which he would bite his tongue. His head is irregularly shaped and very small: he frequently complains of dizziness, and occasionally wets his bed at night, but usually remains most of the night awake, believing his room surrounded by people making a great noise, or opening the door to look in. He frequently crows like a rooster early in the morning, or at other times of the day. He also believes himself persecuted by his parents, and has threatened to kill his mother, telling her repeatedly that

he will do it at the first chance. He has become on some occasions violent, needing to be restrained; uses very foul language, is a liar, has often been drunk; his depraved conduct causes a great deal of anxiety to his family. After the fits, or the attacks of insanity, he goes to sleep for several hours, the approach of this period being always announced by dizziness and severe headache. He looked very pale, and complained of feeling unwell the night of his arrest, in the early part of which he had a fainting turn. His forehead, according to the mother's statement, was then covered over with *petechiæ*, and three days before, he had a severe falling fit, in the street, and had to be brought home by friends of the family. He acts unconsciously after the attacks, laughing in a silly manner at any remarks addressed to him. He has on several occasions gone away from home during his fits of insanity. A year ago, after a falling fit and repeated seizures of *petit mal*, he disappeared from home, and several days after, his mother heard of him through some friends, who found him in Red Bank, New Jersey, acting very strangely, and unable to give any explanation of his conduct. About two years before this occurrence, and under similar circumstances, he left home and remained absent for more than a month, his family being unable to discover his whereabouts. During this time he went to the west, and stopped at Chicago, but could not afterwards describe any of the places where he had been, nor was he, in short, conscious of what he did all that time. Neither has he preserved a better knowledge of what occurred on the night of his arrest, or of the circumstances leading to it, and, on account of the foregoing facts, he has been discharged from prison to be committed to a lunatic asylum.]

Let me now refer to cases, where the state of uncon-

sciousness existed, independent of any visible fit, and on which I desire chiefly to insist, to demonstrate their clinical significance and medico-legal bearings.

I have had a patient under my care since 1867, and observed him very closely, assisted in the beginning by my learned friend Dr. L. B. Edwards, of Richmond, Va. He is 35 years old, epileptic since puberty, and was at first subject to furious mania, lasting about three weeks after the fits of *grand mal*. His condition improved under treatment, and gradually the attacks changed into vertigo, often repeated, accompanied with religious monomania, and he refused to speak to anybody. After an absence of several months in Nova Scotia, he returned to New York, two years ago, considering himself cured, though acting very queerly at periodical times. No fits had occurred for sixteen months, a longer freedom than had ever been observed before. At this time he would lose, every three weeks, the memory of the most trivial circumstances, frequently inquiring for noises that he heard, or obstinately insisting upon going out to wander at a venture for hours, or to visit persons with whom he was not acquainted. On other occasions he would enter a shop and buy articles he did not want; he was once arrested for assaulting a clerk in a dry goods store, who refused to let him carry away some goods he had selected, unless they were paid for. He has in like manner, caused considerable annoyance to his brothers, in ordering things, and denying on their reception that he had bought them. He acts, throughout the paroxysms, in an apparently rational way, answers coherently, but at once forgets what he has said, and repeats the same word, or question addressed to him. He further displays a slight but evident quivering of the hand and of the facial muscles. This state is followed by several hours of profound

sleep, from which he wakes in complete oblivion of what he has done.

A young man, aged 19, with a paternal cousin epileptic, has suffered for six years from *grand mal*, after being sunstruck. For the last year, the fits occurred as a sort of vertigo, without other convulsions, beyond a slight quivering of the facial muscles, which came on generally in the morning; subsequently, instead of vertigo, he exhibited occasionally for hours, or a whole day, an utter unconsciousness of what he did. His mental power in the mean time was failing, and his memory had become very much enfeebled. The first instance of his unconscious state that attracted particular attention, was the following: he left his father's office, where he was employed, to call on a merchant, with whom his father traded extensively, and told him that it was of no use to look after the payment of some pending account, and asked in addition, for the closing prices of certain merchandise, that he could take them to his father before four o'clock that day. It is needless to remark the great surprise that this conduct caused his father, who looked upon it as an indication of sudden insanity. On another occasion, he started early in the morning for Mott Haven, where he stopped at his uncle's, who, struck by the strangeness of his acts and manner, brought him back to his father. He was then planning all sorts of mercantile projects. The day after these attacks, he was quite himself, but could not account for, or remember anything of what had occurred to him.

A gentleman, aged 42, had attacks of *grand mal* from the age of 12, until he was 22, but no fits have occurred since. He, however, has been subject for the last five years, to dizziness and headache, and must also have had some nocturnal attacks, from the statement of

a brother, who has sometimes heard him breathing very heavily, in the middle of the night. It was impossible to arouse him at once from such a condition. He is very passionate, and has had, at variable intervals, attacks, during which, for one or two days he believes himself another man, living in London, where he resided years ago, and acts in the most extravagant manner in regard to his affairs, and is very licentious. He becomes drowsy at the end of these attacks, and after sleeping for twelve or fourteen hours, awakes in a state of confusion, utterly unconscious of his previous actions and conduct.

A young man, about 20 years of age, brought from the Tombs to the City Asylum, was not able to furnish any account of himself, until several hours after his admission. I then ascertained that he lived with his mother, in Hartford, and was subject to epileptic fits, that had always occurred during the night. He could not explain why he started from Hartford, nor what he did before taking the night steamer, where he had a fit early in the morning. He arrived at New York quite incoherent and stupid, and was taken in charge by the police. At the asylum, this patient had several attacks of cerebral epilepsy, when he would become very impulsive and dangerous. One morning, after getting up, he assaulted another patient, who addressed some remarks to him, and wounded him about the face, with a vase he threw at him. During the fits of cerebral epilepsy, which lasted two or three days, and were not constantly preceded by nocturnal attacks, he acted entirely automatically, without preserving afterward the least recollection of what he had done throughout this stage.

I may further relate another instance, where the true nature of the disease would have been very difficult or

impossible to recognize, without the previous knowledge of the epileptic affection, and which also illustrates the multiple transformations, capable of being exhibited by epilepsy.

A German woman became epileptic at the age of thirteen, when she began to menstruate. Her father had paralysis at the time of her birth, and died paralyzed. The fits of *grand mal* occurred in the beginning, every four weeks, about the menstrual period, and she was troubled with faintings the rest of the time. At the age of twenty-two, her mind became so much deranged that she was placed in a lunatic asylum, in Germany, where she remained for nearly two years, and was then discharged as recovered from her insanity. Three years elapsed thereafter, without fits of *grand mal*, but the fainting turns persisted with less frequency, until one morning, this woman awoke completely stupid, not answering any question, and in one word, incapable of any voluntary exertion. She had to be put in and taken out of bed, had also to be fed, and would soil herself with her urine and fæces. She would remain in bed and go to sleep, in any position she might be placed, and when awake her eyes remained fixed, with pupils dilated, and had a glassy lifeless expression. While in this state no reflex excitations could be induced, and after continuing thus for four or five days, she would awake and appear natural, but had no appreciation whatever, of the attack. These peculiar paroxysms were repeated periodically, at intervals of three or four months, and then passed occasionally into attacks of mania, lasting one or two days, when she would sing, and become very boisterous and restless, and tear her clothing, though she had no fit either before or after the maniacal attacks. This was, most assuredly, a typical example of *folie circulaire*, and the

patient has been considerably improved by treatment, although the fits have not entirely disappeared.

The following are such very remarkable instances of the state of unconsciousness in question, narrated by Lasègue* during the recent discussion on the transformations of epilepsy, in the Medico-Psychological Society of Paris, that I feel bound to add them to those here cited. "A gentleman of distinguished appearance, chief officer of a railroad company, was arrested in a perfumery shop. He had bought different articles, and while the female clerk was packing them up, he put into his pockets various things which were lying on the counter. He went out without paying for them; the clerk followed him, and demanded their value, but he refused to pay, stating that he did not understand what was wanted of him. A *sergent de ville* interfered, the stolen articles were found, and the gentleman was arrested, and taken to a police station, and thence to the prison. There was something so unusual about this occurrence, that the chief officer of the prefecture suspected the prisoner was affected with mental alienation. I had to examine him, and deeply interested in the situation of a man, holding a rather high social position, who had stolen objects of an almost worthless value, and which were entirely useless to him, I instituted a strenuous investigation into his case, having the presentiment that he was an epileptic, but unable to discover any fit or vertigo. His intelligence was unimpaired, and the only thing I learned, was that for three or four years past his memory had been failing. 'Before,' said he, 'I could recollect the tariff with a surprising quickness; as soon as I was asked for any information I could furnish it immediately, without any hesitancy. To day, I am obliged to consult my

* *Annales Médico-Psychologiques* 5ème Série. Tome IX. Janvier, 1873, pp. 151-153.

tables; it is impossible for me to remember them.' This, however, helped me little; the information I gathered from his friends, throwing no better light on the case, I then questioned his office servant, who had been a long time in his service. He at once replied, that he had never noticed anything extraordinary with his chief. I kept on my questions, and disclosed at last, that one day as he was leaving the cabinet of his chief, and having already closed the door, he heard the falling of a heavy body, and on re-entering immediately, found his chief lying on the floor, and assisted him to get up, but that no similar occurrence had ever been repeated since. I then became satisfied that this man was an epileptic, and that his disease had passed unsuspected."

"Let me add another example," continued Lasègue. "A blacksmith was being helped by one of his assistants, in shoeing a horse. Suddenly, without provocation, he struck several blows at the head of his companion, who was holding the horse's foot, and fell furiously upon him. He was arrested, and in answer to the question, why he had struck the workman, replied, because he could not bear him, and wanted to get rid of him. He pretended that the renewed quarrels they had every day, caused him endless difficulties. Upon inquiry it was ascertained that there was not one word of truth in such a statement. I was directed to examine him, and being already struck with the rage with which the blows had been given, and with the fury he displayed, similar to that peculiar to epileptics, I undertook my researches, surmising the idea of epilepsy. I found nothing characteristic, and did not listen to the system of defence adopted by the prisoner. I had evidently to contend with an individual, who had acted under the influence of an irresistible impulse, which he

could not account for, and who on discussing the subject, invented a system to explain it. This man, confined in Mazas, did not exhibit the least disturbance during fifteen days. Suddenly, he was seized with the most violent delirium, his strength increased, he tore up the floor of his cell with his hands, and having detached the hard cement which unites the bricks forming the arched-roof of every story, he made an opening large enough to let himself through, and fell into the cell underneath the one he occupied. He threw himself on the prisoner confined therein, and struck him; a struggle took place, and the keepers had the greatest difficulty to restrain him. He continued for seven days thereafter in a state of constant delirium, the violence of which I could only compare to that of delirium tremens. This unquestionably was an epileptic attack."

During the same interesting discussion, which called forth the report of the two cases just cited, Berthier related in detail the history of the teacher Postula, whose case has deeply engaged the attention of the most prominent Parisian alienists, and who, besides his convulsive paroxysms, with singular mental disorders, and depraved instincts of sodomy, alternating with periods of apparent intellectual soundness, exhibited also fits of absence, during which he would become so much abstracted as to be entirely unconscious of the presence of bystanders. One day, while seized with these attacks, he wrote two very long and sensible pages, and afterwards interpolated therein, almost unconsciously, a long grammatical discussion.

I could multiply references to several other well authenticated cases, related by standard authorities on epilepsy, wherein the state of unconsciousness strikingly appears, although not specially pointed out, in the light here considered. I must not overlook, however,

the no less remarkable example, presented by Dr. Gray, during the trial of David Montgomery, to illustrate the important phenomenon in question. In this epileptic the state of unconsciousness was displayed for four days, during which period he met with a fracture of the arm. He never appeared afterward to be aware of the circumstances under which it happened, or of the remarks (apparently rational) he expressed about his injury, or of his conduct throughout this paroxysm of epileptic insanity.

The cases of intermittent epileptic insanity occurring without close proximity to any visible fit, are, indeed, frequently very perplexing. They correspond to the larvated or masked form of cerebral epilepsy, described by Morel, and to which his pupil, Dr. P. Leblois, has given the name of cerebral epilepsy. Morel deserves the credit of having collated the most important facts, which have contributed to elicit a correct knowledge of cerebral epilepsy. But, the first clear and striking passage relating to cerebral epilepsy, may be read in the well-known commentaries on insanity, written nearly half a century ago by George Man Burrows, and, which is yet, one of the most valued books on the causes, forms, symptoms, and treatment of insanity. When speaking of the complications of epilepsy with insanity, Burrows says:* “It appears as if the epileptic impulse, when not ending in convulsion, acts on the brain in a peculiar mode, and imparts to it that particular action denominated epileptic mania.” By substituting for the two last words, larvated or cerebral epilepsy, we may have the most concise and correct explanation which might perhaps be suggested of this condition.

Cerebral epilepsy implies an advanced stage of the epileptic malady, but it may be superinduced at any

* *Commentaries on Insanity.* London, 1828, p. 156.

time throughout its progress, and even while such progress has been effected in a sort of hidden or larvated manner. There is an example, reported by Desmaisons,* where the convulsive fits had ceased for nearly forty years, the man continuing to have periodically, every year during the spring, attacks of cerebral epilepsy, when he would become furious and excessively intemperate. In one of these attacks, and not having yet touched liquor, he killed his old mother without any motive whatever, just as she came into the place where he was. On seeing her, he suddenly seized a knife and stabbed her several times in the neck, then sat down on her body, and when his sister-in-law came to the spot, attracted by the cries of the victim, he renewed the stabs in the breast of the expiring old woman, and finished her.

The following are examples of cerebral epilepsy in no close connection with any fit of *grand mal* or *petit mal*, but obviously showing their epileptic nature.

A girl from Indiana, aged twenty-four, epileptic since the age of sixteen, had attacks of *grand mal*, preceded by maniacal excitement. She was an old hospital patient, and her attacks had insensibly been transformed into fits of mania, lasting several hours, during which she would exhibit the most determined suicidal tendencies. She displayed these fits of transitory mania for about a year, when the spasmodic attacks recurred irregularly, and she became demented. This woman was very quarrelsome and had to be isolated and closely watched during the fits of mania.

A young man, aged twenty-seven, had fits of *grand mal* preceded by an aura, starting from his bladder. The attacks were sometimes averted by urinating, on the first intimations of the aura. He had also congeni-

* *Archives Cliniques des Maladies Mentales et Nerveuses*. Paris, 1861. Tome I. p. 306.

tal deformity of the left limbs, and was a reckless masturbator. While in the hospital he suffered from few fits, but was subject to periodical attacks of insanity, when he would become very abusive and uncontrollable, wandering all the time around the asylum grounds. He would also pick up and keep his pockets filled with every little object he might find in his wanderings. He drowned himself in the river during one of these fits of insanity, and left a letter with another patient, disposing of the few things he possessed at the hospital, and full of the most mad expressions against his mother.

A man, aged thirty-six, was in his infancy seized with fits of *grand mal*, which reappeared during puberty, and, after becoming very frequent at the age of twenty-five, they ceased, again to be replaced by paroxysms of mania, which never lasted longer than one day, but were repeated three or four times in the year. In these paroxysms, which usually occurred in the morning, he was troubled with hallucinations of hearing: talked in a boisterous manner, constantly asked "where, where, tell me where." He would not reply to questions, and became very dangerous. The fits of insanity yielded to treatment with ergotine, conium, and bromide of potassium, but the attacks of *grand mal* have recurred occasionally, leaving him very irritable, lethargic and yawning for several hours.

A man, aged thirty-two, has been epileptic since the age of twelve. He commenced with fits of *petit mal*; while in conversation in his room he would stop suddenly, and hide himself in a corner, or turn the key of the door without opening it, or when walking in the street, he would start and run for a short distance, then halt for an instant confused, after which he would not lose the thread of his conversation, though remaining

wholly unconscious of what he had done. Subsequently these attacks were replaced by *grand mal*, frequently repeated, attended with melancholia for a few days, and during which the least remark, or even the mentioning of his name to call him, would throw him into a fit of passion. Lastly, the attacks of *grand mal* disappeared, but for five or six days he would display periodical fits of religious monomania, when he would keep writing on religious subjects, or loudly reading the Bible, and preserved the most irritable and dangerous disposition during these seizures. This patient used to keep a diary of his life, which he concealed from everybody's sight with great care, and in which could be seen the description of his hallucinations of sight and hearing. I will present hereafter one of the letters he wrote to his brother at the close of one of his attacks, which vividly shows his hallucinations of sight.

A lady sent to me by my friend Prof. Chas. Budd, had unsuspected nocturnal attacks, probably commencing at the age of puberty, at which time she also suffered from fainting spells. She married, and in her wedding trip, was seized with the first diurnal fit of *grand mal*, while in the top of the tower at Mount Auburn Cemetery, in Boston. When she first consulted me, three years ago, she had slight vertigo through the day, preceded by a vision of a sudden flash of fire, like lightning. Her memory was rapidly failing, and she complained of not being herself, "feeling herself insane, without a will." She had also been overcome by blind impulses to kill her new born daughter, and being unable to resist them, her mother had to take the infant away from her. Let me incidentally notice, that this child soon began to exhibit signs of paralysis, and is at present completely paraplegic, having not yet been able to articulate a word. The mother im-

proved very much under treatment, the *petit mal* stopped, and she gave birth to a second child about a year ago. Since then, the fits of *grand mal* recurred with great frequency, but were soon replaced by attacks of cerebral epilepsy, which, the longer their intervening period, the more severe they have been. A few weeks ago this lady went to the room of her paralyzed daughter and ordered her nurse to go away. As soon as she was left alone, she passed the fingers of her right hand into the child's throat, and would have suffocated her, if the nurse, who was apprehensive of some mischief on the part of the lady, had not ran into the room as she heard the child screaming. The mother pretended that she was transmitting her electricity into the child's throat to cure her palsy, and make her speak, and became very mad and furious when removed from her daughter's room. Two hours after she went to sleep, and did not know on waking what she had done. She had remained free from *grand mal* for several weeks.

I have selected these examples because they evince the true epileptic source, and insane nature of the transitory attack of cerebral epilepsy, which some French alienists regard as a spurious form of insanity. There are cases, however, where we have to depend on the antecedents, to arrive at their precise diagnosis. Why the attacks of cerebral epilepsy should be more prolonged than the other convulsive paroxysms, is a question that naturally suggests itself. The reason seems to me quite obvious. The reflex faculty of the spinal cord can not be called several successive times into action without exhausting itself; not so with the cerebral activity, which is continuous in its operation, and capable therefore of being disordered by the epileptic shock, in the same periodical, but more prolonged, though still

transient manner. I have previously asserted, that the closer we investigate the history of the so-called transitory mania, the more restricted becomes the number of cases which do not originate from epilepsy. My views reach still further: the most typical instances I have met with of instinctive monomania, (*manie sans delire*,) as described by Pinel, Esquirol, Georget, Conolly, Prichard, and other alienists, have been among epileptics, on which account I lean strongly to the belief expressed by Berthier, that we are not distant from the day, when we shall regard instinctive monomania as a form of epilepsy, acknowledging its source in a lesion of the sympathetic.

I will not trespass on the time of the Association by demonstrating the frequency of religious monomania, and erotomania among epileptics, which I have pointed out in my clinical researches. These special forms of monomania, or rather the exaggerated religious feelings of epileptics, in the early stages of their disease, also attracted particular attention from Morel,* although it has been stated very recently, by James C. Howden,† that, “to the best of his knowledge, this feature in the mental condition of epileptics, has not attracted that attention to which its frequency entitles it.”

Regarding the salacity of epileptics I wish, however, to remark, that according to my observation, onanism has been in almost every case one of the earliest symptoms of the disease, instead of its original cause as is usually believed; its indulgence has, of course, aggravated the fits, and when a neurotic hereditary tendency has existed, onanism has often preceded the onset of epilepsy, particularly among adolescents or children. Neither will I enter into details about the remittent

* *Traité des Maladies Mentales*. Paris, 1860, p. 701.

† *Journal of Mental Science*, No. LXXXIV., January, 1873, p. 492.

and continuous forms of epileptic insanity, which are both attended with dementia, imbecility, or a range of symptoms displaying a great resemblance to those of general paralysis. These cases are not embarrassing in their medico-legal aspects, and they swell in large proportion the incurable, or hopeless class of lunatics, which contributes in no little degree to the overcrowding of our asylums. Let me, however, notice the traits which distinguish the ordinary case of paresis, from that of epileptic paresis. The difference has been established in such a brief, truthful, and categorical manner by Delasiauve, that I will borrow it here.

“The epileptic paretic seldom exhibits the moral inconsistency and vague ambitious delirium, so frequently displayed by ordinary paretics. Indeed, he does not let his faculties ramble, his judgment is slow and confused, his memory weak and obscure, the expression of his ideas dull and laborious, like the articulation of his speech; but, nevertheless, preserving throughout, sufficient conception to accomplish the ordinary acts of his life, and being not insane, in the proper acceptation of this word. What prevails with him, is, I repeat it, the inability to act; an intellectual confusion rather than the incoherence or rambling of thoughts. No matter how deep be the deterioration, the cases of general paresis, due to epilepsy, display always such an identical physiognomy, that it is impossible to mistake them for any of those acknowledging some other source.”*

The distinction between the intermittent form of epileptic insanity, unaccompanied by any visible fit, and other varieties of periodical mania, is a subject of primary clinical and legal importance. The discrimination is rendered easy from the beginning, when a reliable account of the patient's antecedents accompanies the history of his case. The demonstrations of parents stained with insanity, epilepsy, or any other constitutional nervous disease, an extreme susceptibility to anger, or impulsive acts, with strange peculiarities of

* *Journal de Médecine Mentale*, Tome I. Paris, 1861., p. 271.

character, moral depravity, and a more or less dwarfed condition of the intellectual faculties, in addition to the onset of fits during infancy, or adolescence, and subsequent vertigo or fainting spells, or instantaneous absence and giddiness, are elements of diagnosis. These when clustered around a case, evince the true epileptic nature of any transitory, instinctive, or mental disorder that might have recurred always identically, or with such a complete resemblance to the preceding paroxysm, as we notice but exceptionally, with any other form of mania. But we are often deprived of all these guides to our diagnosis, and left to judge of the attack by phenomena, which still bear an unmistakable stamp, although their significance might perplex an unexperienced physician.

I fully agree with Falret, that "whenever we meet with isolated acts of violence, outrages to person, homicide, suicide, arson, which nothing seems to have instigated, and when upon attentive examination and thorough inquiry, we find a loss of memory after the perpetration of the act, with a periodicity in the recurrence of the same act, and a brief duration, we may diagnose larvated epilepsy."* Not only do the attacks of cerebral epilepsy recur under the paroxysmal form peculiar to every manifestation of the disease, with all attributes of real insanity, but when they are displayed from the beginning, as in cases of traumatic injury to the head, syphilis, etc., they ordinarily repeat at comparatively shorter intervals than under other circumstances. The manifestations of epileptic insanity are never solitary; but they involve a repetition of fits, of mental or physical character: consequently, such insanity implies ordinarily, an advanced, but not necessarily ultimate, stage of the epileptic malady, and hence the

* *Annales Médico-Psychologiques* 5ème série, Tome IX. Jan. 1873, p. 162.

possibility of its relief or cure. We rarely observe epileptic insanity before puberty; for idiocy accompanies congenital epilepsy, and imbecility, the epilepsy which develops itself in childhood; the sudden impulsive acts to which epileptic-imbeciles are liable, render them one of the most dangerous class of patients in our asylums.

There is a manifest relation between the intensity and length of epileptic insanity, and the degree of impediment to the cerebral circulation, which may ultimately lead to meningitis. Giddiness, with perspiration of the head, sometimes very profuse, and also epistaxis, are symptoms observed during, or immediately after the paroxysm. Nothing betrays the congestive state of the brain more than the bloated and livid appearance of the face, the injection of the conjunctivæ with a thick white discharge, collected in the angles of the eyelids, and the lost, heavy look of the patient. If we examine the pupils, during the exacerbations of the paroxysm, when the patient becomes boisterous and violent, we will notice a rhythmical dilatation and contraction, entirely alike to that which follows the fits of *petit mal*, or *grand mal*, and which I have seen, in the latter instance, to persist for over one minute. The slowness of the respiratory activity, with marked loss of its normal relation to the pulse, is also a phenomenon I have detected in such a constant manner as to convince me of its being, as I have shown, an important peculiar symptom of epilepsy.* There is always at the close of the fit of epileptic insanity, a period of sleep which establishes the transition to a sound condition of mind. This sleep may be prolonged several hours, accompanied by a heavy breathing or snoring, which makes it resemble very much the sleep of drunkenness, a mistake strongly countenanced by the quick recovery

* On Epilepsy, Anatomico-Pathological and Clinical Notes. N. Y. 1870. pp. 279, *et seq.*

of the patient. I am not aware of any stress being laid on the medico-legal value of this symptom, which we find particularly noticed in many of the cases recorded by the authorities on epilepsy, and in those I have already narrated.

Another peculiarity, commonly conspicuous in epileptic insanity, is the echo sign or repetition by the patient of the same phrase present in his mind, or of the words addressed to him. This echo sign was estimated by Romberg, generally as an indication of cerebral softening; but, in this instance, I consider it mainly the result of a perverted will. I see that it has been distinctly cited in some cases, reported by different authors, although no precise reference is made to it in most of the others. The phenomenon renders itself very striking in the writings of the epileptic insane, as evinced by the following examples.

Here is the letter of the epileptic with religious monomania, to whose case I have previously alluded.

MARCH 16th, 1868.

My Dear Brother:—Your letter of the 12th came safely to hand through the guidance and directing hand of our heavenly father. Thanks and blessings and honor be unto his holy name, for ever unto his holy name for ever. It was very welcomed and I was very glad to hear from you and all my friends again. See see how good Jesus is to me, how good Jesus is to me who never did deserve any mercy. I hope that the lines I wrote will do you a great deal of good, and that that it will be the means of saving them all. I hope that it will awaken all your luke warm profession and stirr you up, and it will awake your lukewarm and awake you out of your sleep, and show you your lost and ruined condition, and make you repent and believe on the Lord Jesus Christ, for if you do not you do not you will be damned.

I have been blessed a great deal, and last night I received a glorious blessing from God. God is so very good very good to me a poor worm of the dust and Jesus my love is so sweet, so precious into my soul, and I do love Jesus Jesus. I can not love him

enough. While I am writing he is smiling upon me, me and blessing me so sweetly, his blessed presence is so sweet. James you must draw nearer to God. Satan is trying his best to destroy you, but I have prayed the Lord to bless and make you entirely his. Watch and search the Scriptures. Woe, woe be that man that lives in his sins, and woe, woe, woe be to him that teaches false false doctrines, that says you can not live without sinning, if it were better for him than he had never born, for God God says we shall and must live without sinning, What say you, what say you. I say yes, yes with all my heart, glory be to God. Ask and believe, and you shall receive. I must now close. Let all, let all read this whoever will. Give my love to all. Accept my love and may God bless you all and save you all for Christ's sake in the name of our blessed Lord Jesus Christ, is the prayer of an humble follower of and brother in Christ.— * * * * P. S. write soon soon.

The following lines were left at my office by a lady after she had had a nocturnal attack, and while laboring under the mental consequences of it.

"Dear Doctor

I am very sorry I could not find at your office. The seton hurts me awfully. I am getting quite getting quite well now of my head ache. I shall call on you at 5. p m. Yours respectfully."

This other letter, which is a very typical one, was written by a patient of Dr. Gray, who has kindly allowed me to copy it from the asylum records, where other similar ones may be seen. The patient was subject to periodical attacks of epileptic insanity, attended with epistaxis, and was demented; his case was one of remittent epileptic insanity. The letter is very badly spelled, and reads thus:—

"Harvey Morgan Catharine Morgane yo can write to me as yo want to and to the girls for i want to come home now rite awa for i am we wl and fell good i have had no fit for a month for a month for i have been well and you can come after as quick as yo can for i want come home as soon as i can so com as quick as you can use taugusta morgan almeda morgan mother morgan and my

time is out so pap yo must come as you want to for a month i have not ben dockerd eny so i am well so for a mont i have no fit so yo can come as yo want to for i am redy to come so it is the 20 august and tel ma that i want to see her as yo can come and tell the tilt arger that i am glad that i am come home i fell very well and that i want to see them all veary well so come as quick as you can for i am redy as quick as you can can get here with awe to morow father i want to see you as quick as yo get here for i am well for the boss of the house has not been to home for a month so you can come as quick as you can rite rite away and bee here the last of the month and tell ma that i wa to see her so papa you can come rite away as yo get this leter then make a start for all things is rite as quick as you can for i am redy to come home rite away sob be rite along to morto for i am redy to come home rite away as quick as you can come here for the docter want to see yo here wen yo get here so come as quick as yo can rite awell away so i will rite rite away for thal say i am well so good by come as quick as yo can and i am redy to come rite away to doct says that i am well so come rite away for i have been left curde for a quite spell so i am redy to come home as quick as you get here so come as quick as you can so rite away tell them all that i want to see them all as quick as i can get at home so i will come as quick as i can get home i hope that they all are well for i want to see them all so tell ma that i am glad that things is all write so bee rite along as quick as yo can that will be to-morrow i fell well so come as quick as you can come for i am redy to come home rite away to day so come on the 23 of this month and frite along as quick as yo can come for i am redy to come rite away tell ma that i want to see her as quick as i can so pa yo can come as quick as you can for i am redy to home as quick as yo can get here and bee redy to come as quick as yo can for i am redy to come rite away for i am well so brite along as quick as you can for the doctor say that i am well so come as quick as you can for i am redy to come home rite away come as yo can for think that they want ther pay so rite along as quick as yo can now for we are redy rite away to come home bee rite along as quick as yo can for i am redy to come home as quick as yo can get here so bee rite along to-morrow for i am redy to come home rite along so bee here as quick as you can for to morrow as soon as i can bee rite along as soon as you can for now i am redy yess to see ma now pa come as you can as yo can so tell the tittles girls that for long i will bee at home for i am redy to come rite away so tell pa the quick he comes to bee rite

along to be rite along within a few days rite along so come as quick as yo can to mor for there are redy as quick as yo get here so bee along as quick as yo can rite along for i am redy write along quick the better for i am redy to come home as quick as yo get here so bee rite along the are redy and they are all gone so bee rite along as quick as yo can so be yo here as quick as the better get home rite along that is so."

The last part of this letter shows the echo sign more and more prominently, as the patient's mind became fatigued; the same idea, expressive of his desire of leaving the asylum, kept as it were, rebounding all the time in a brain without sufficient will to take wing and outleap to other conceptions. I would not exaggerate the diagnostic value of this sort of writing, since the repetition of the same sentence is also observed in other forms of insanity, not associated with epilepsy, although certainly not carried to such an excessive degree. The phenomenon, however, seems to have attracted no attention, and I merely point it out, on account of the assistance it may render, to throw light on medico-legal cases.*

It is not through oversight that I have passed thus far, without directing attention to the hallucinations and delusions which are so constantly associated with epileptic insanity, and which I have not forgotten to set forth in the examples here narrated. The statistics of the 267 cases of manifest epileptic insanity, on which the conclusions I have put forward are based, show that morbid sensorial phenomena of various kinds have existed in 86 per cent. of the cases. Hallucinations of

* Dr. Clement A. Walker, Superintendent of the Lunatic Hospital, Boston, Mass., who has paid particular attention to the subject of epileptic insanity, told me, after the reading of this paper, that he has been equally struck by this peculiarity in the writings of the epileptic insane. He kindly promised to favor me with the copy of a letter from an epileptic girl he recently examined, which illustrates remarkably the echo sign. I greatly regret not to have received it in time for its insertion here.

hearing were the most prevalent, being recorded in 62 per cent. of the cases; of sight in 53 per cent.; of hearing and sight in 42 per cent., and of smell in 6 per cent. Finally, about 30 per cent. of the cases displayed disturbance of general sensibility, anæsthesia, hyperæsthesia, numbness, etc., etc. If we take into consideration the frequency of these false sensations in epileptic insanity, it will not be difficult to realize the manner in which its victims are fascinated by the feelings they experience, and which ordinarily assume the most frightful or deceitful character. And, it is not mainly the hallucinations of hearing and sight which so terribly overwhelm the epileptic; they also frequently suffer an unmitigated distress from the condition of their general sensibility. One of my patients begged to be relieved from his feelings, even if his fits were not cured; he remarked that his trouble was not in his head, but all over his skin; he could not explain how or what he felt. The only way in which he could overcome this terrible irritation, was by striking with his fists repeated blows against the walls of his room, until he bruised his hands and wore his strength out. In one of these attacks, which looked so much like a paroxysm of the instinctive madness of Pinel and Esquirol, he smashed to pieces the pannel of a door, and became so uncontrollable that he had to be restrained. I need not recall the positive terms with which Brierre de Boismont, whose competency on the subject far exceeds that of any other author, disapproves of the manner in which those who have discussed the legal responsibility of epileptics, have completely thrown aside the relations between hallucinations and epilepsy, in the epileptic shock which only affects the will. He reports several observations in support of the frequency of hallucinations with epilepsy, and believes it probable, that many

crimes committed by these unfortunate beings, and for which some have been severely punished, were but the result of hallucinations of hearing and of sight. Did time permit, it would be easy to accumulate a large number of examples, under my own observation, which in addition to those of Brierre de Boismont, and other alienists, establish the fact very clearly, that the morbid sensorial phenomena just considered, more than any other, are the cause of the impulsive and instantaneous violence so peculiar to epileptics. Wherever we have data for comparison, we shall see that the hallucinations of hearing are the most frequent, as is shown by the statistics of my cases. Morel has, with great propriety, insisted on the character of these hallucinations of hearing, and the piercing noises usually heard by epileptics, and which differ entirely from the noises complained of by those laboring under the delirium of persecution. There is, as Morel says, something very special in the phenomenon which could not be mistaken by an attentive observer, and which has always led the eminent alienist, just named, to the establishment of a definite diagnosis.

It would serve little purpose to speculate upon the facts I have so hastily gone over, while seeking to present in these faithful outlines, a general sketch, and not an exhaustive description of epileptic insanity. I have avoided making any reference to the psychical phenomena, which like precursory clouds or claps of thunder of a threatening storm, anticipate the outbreak of an epileptic fit, under the form of the intellectual aura, of which Falret has given the most faithful and interesting description. Nor have I alluded to the special moral and intellectual changes which characterize epilepsy, and which may be superinduced from its very outset, after the first paroxysm, effacing, as Maudsley says,

the moral sense as it sometimes effaces the memory. Let me simply repeat, that such deep moral changes and depravity, are more apt to occur, as I have often seen, from the very inception of the attacks, in those cases where epilepsy is induced by a traumatic injury to the skull,—a fact worthy of great medico-legal account. The appreciation of such morbid dispositions is beset with difficulties, and usually received with strong prejudices in Courts of Justice. Such intellectual changes, though not constituting a state of insanity, must place the epileptic, as Baillarger justly declares, beyond the common rule, and extenuate at least his legal responsibility.

I pass now to the medico-legal bearings of epileptic insanity, but will not dwell long on the subject, for it is not necessary for me to insist on the legal points, raised on such examples as I have mentioned, since they are so clear, that, as alienists, we can not fail to appreciate them at once. My closing remarks will be mainly directed to the state of unconsciousness of epileptic insanity, and the irresponsibility for criminal acts that it must confer. My idea of responsibility is clearly defined in these lucid conclusions of Bucknill. "*Responsibility depends upon power, not upon knowledge, still less upon feeling. A man is responsible to do that which he can do, not that which he feels or knows it right to do. If a man is reduced under thralldom to passion, by disease of the brain, he loses moral freedom and responsibility, although his knowledge of right and wrong may remain intact.*"* Having arrived at this conviction in reference to responsibility, and bearing in mind the reflex nature of the physical and mental phenomena connected with epilepsy, and our inability to

* Unsoundness of Mind in relation to Criminal Acts, second edit. London, 1857, p. 59.

avoid the effects of reflex actions, it follows, as a matter of course, that *I should regard epileptics irresponsible for any criminal act they might commit under the influence of a paroxysm.** Their punishment may be legitimate, according to statutory laws, though nothing else but inhuman, since it deems a man accountable for being visited with the most dreadful disease, the consequences of which he can not avoid. This explanation suffices also to appreciate the responsibility of those epileptics, who appear to preserve the knowledge of right and wrong, and who, like many other lunatics, perpetrate their criminal deeds or utterances with evident premeditation, or thought of consequences. We know too practically, that the power of systematic design and ingenuity of execution, in no manner disproves insanity; consequently, I shall not waste valuable time repeating what we all have learned from the very first moment we commenced our clinical experience with the insane. Silence on this well settled principle of psychological medicine might, perhaps, have been regarded as countenancing the contrary doctrines on the subject, which have found their way in Courts of Justice, with no less discredit to science, than injustice to more than one lunatic, whose punishment has been secured on the acknowledgement of such false principles, though agreeable to the common sense, that has so much to say

* I have frequently read, and with no less frequency it has been stated by some medical experts in criminal trials, that epileptics are capable of committing this or that other overt act during a convulsive paroxysm, which is wholly incorrect. During a convulsive paroxysm the epileptic remains unconscious and insensible, with the body or limbs more or less thrown into convulsions, and therefore he can not perpetrate any act of violence. It is during fits of *petit mal*, or of cerebral epilepsy, that epileptics may keep on talking or acting in a coherent though unconscious manner, and under such circumstances, in cases of *petit mal*, the muscular spasms are so light and of such a limited extent that they do not usually attract attention. The falling fit and furious action are incompatible with each other; the latter exists either before or after, but never while the convulsive manifestations are lasting.

about medical science, or to the demands of public clamor. A reviewer in the *Journal of Mental Science* has lately written in reference to the legislation for habitual drunkards; that it is a miserable misfortune for a great question when it falls into incompetent hands; and the remark applies no less forcibly to the subject of criminal insanity, and those learned experts called to enlighten our courts and juries thereon, without ever having had any practical experience in insanity, on which they give nevertheless, with great self-assurance, the most ridiculous or sensational evidence.

Regarding the responsibility of the epileptic insane, what I wish mainly to point out, is, that the majority of epileptics have no knowledge, or at least a very imperfect idea, of their misdeeds; such a state of unconsciousness being the one I insist upon as the characteristic of epileptic insanity. The fundamental error in judging of questions relating to criminal acts, perpetrated during epilepsy or insanity, generally consists in measuring the nature of the morbid feelings and actions of such lunatics, by the standard of our sound feelings. Unconscious cerebration exhibits itself in a high degree in epilepsy, but it is not exceptional to it, for we observe it more or less in all forms of insanity, and strikingly in somnambulism. The recognition of our feelings and actions, is the essential requisite of consciousness; and, that lunatics are divested, even in the apparently rational and quiet periods of their madness, of a proper recognition of their outward relations and feelings is an obvious fact. A very cogent proof of this unconscious cerebration of the insane, is further evinced in the fact so properly remarked by Bucknill, that a large number of individuals having a tendency to become insane, have the power to resist the same, if they can only be brought to exercise it; which means

simply, if they habituate their will to reflect, and have the proper appreciation of their actions, or, in short, if they act consciously.

The examples I have selected render plain the state of unconsciousness, during fits of epileptic insanity, and not only place its existence beyond question, but furnish the explanation of the singular and sudden oblivion, so peculiar to epileptics after the commission of their criminal acts. In referring to the state of unconsciousness not immediately connected with a fit, during which Fyler, Bethel, and Winnebore committed homicide, Dr. Ray says that it is supported only by their own statements, which under the circumstances, are not to be implicitly received. The description I have set forth, of this phase of the epileptic malady demonstrates that there was nothing improbable in the declaration of these three epileptics. Another interesting point, worthy of special reference is, that none of the patients who have come under my observation, were aware of their ever having acted in an unconscious manner, the occurrence of their previous attacks of unconsciousness having been reported to me by their relatives or friends. The young man who took a buggy he met in the street, and rode, over two or three hours during one of his fits of epileptic insanity, and who in a subsequent one embarked to go to England, was never aware of such facts; nor could any of the other patients give any account of their similar trances of unconsciousness. The case of Winnemore is, therefore, curious in this particular regard, as he knew having once rowed about in a boat for several hours, without being aware of the fact, having been told of it, it is true, by those who saw him.

A man is confined in the New York City Prison, for having killed the alleged seducer of his wife. The

parents of this criminal are deeply tainted with insanity; his father and a younger brother are epileptics, and six other paternal uncles and cousins, are epileptic or insane. This man has gone through a most adventurous life and travels. He represents himself as having fits of *grand mal*, and attacks that he calls "nervous paralysis," which are probably *petit mal*. He also shot his father-in-law after a quarrel, and after he had been, as he asserts, suffering from *grand mal*. He has constitutional syphilis, and phthisis, and besides a slight twitching of the facial muscles. I had about an hour's conversation with this prisoner, whose history points so strongly to epilepsy, and from the open talk he had with me and one of the lawyers engaged for his defence, who accompanied me, I was led to believe, that he had no real appreciation of his crime or remorse with regard to it. He related among his adventures that, in 1857, while employed as clerk, in a mercantile house in New York, he was walking along the dock, when the steamer "Jas. Adger" was about starting for Charleston. He jumped aboard of her, and found himself afterwards in Charleston, without money of any account, baggage, or any friend. He had to pledge his jewels to secure passage in a schooner coming to New York, where he arrived in a stupid condition which lasted several days. He has never been able to give the reasons which prompted him to the execution of such an unnatural act, and to abandon his employment. He recollects, however, the event of such a strange journey, and if the facts in relation to his alleged fits are confirmed, it is fair to presume, that his trip to Charleston might have been undertaken, while he was laboring under cerebral epilepsy. If this is demonstrated, his case will be the first I know of, where an epileptic has preserved, without being told of it, a distinct recollection of such paroxysms of unconsciousness.

I have endeavored to establish the principal phenomena which may furnish the safest criteria to recognize epileptic insanity in its various forms, and it is useless to assert, that the distinct demonstration of the existence of such phenomena is indispensable before we can fully appreciate and decide upon the nature of any criminal act, perpetrated during an alleged condition of epilepsy. Your attention has been engaged longer than I calculated, and I must bring these remarks to an end. We learn by the conscientious pursuit of our profession, that to advance, we must be prepared to modify or abandon our conclusions, with the elucidation of their unsoundness or shortcomings. I have taken particular care not to engage in idle speculations, and to avoid rendering more obscure the questions of so great moment, to the welfare of epileptics, involved in this subject. I am fully aware that I have not grasped it in all its breadth, but I have given you the plain narration of cases of epileptic insanity, like many of those that assuredly fall under your daily observation. These have been collected and submitted to your attention, not to suggest any new ideas about them, but simply to aid us to correct our conclusions according to the more enlightened and judicious views of the principles they illustrate.

HYSTERIA IN CHILDREN, CONTRASTED WITH MANIA.

BY HENRY LANDOR, M. D.,
Physician to the London Asylum, Ontario.

[Read before the Association of Superintendents of American Institutions
for the Insane, at the meeting held at Baltimore, May, 1873.]

The case of hysteria I brought before the meeting of the Association at Madison, last year, gave rise to some discussion on points not fully considered by me, before it was related. No previous intention existed on my part of alluding to the case, at the meeting. It was only told to fill a vacant hour. It excited more attention than I supposed it would. I was asked pointed and searching questions on the responsibility for crime, of a patient suffering under the symptoms described, and how the disease could be said to differ from acute mania. With regard to responsibility for illegal acts committed whilst the disease exists; I imagine that responsibility would be determined on exactly the same principles as it is in cases of transitory disorder of the mind, or of continued impairment. Whatever disturbs the mind, whether fever, inflammation, mania, or hysteria, must, according to its amount and symptoms, more or less deprive the sufferer of responsibility for acts done while so afflicted. Each case must be left to the consideration it merits, and no general rule can be universally applicable. This is the very point I wished to state emphatically in my paper on *Insanity in Relation to Law*.

Before deciding the differential symptoms of mania and hysteria, I think it will be advisable to say a few

words on hysteria generally, and on the nature of reflex actions, and the influence of the cerebral lobes over their manifestations. To use the words of my friend, the late Mr. Skey, of St. Bartholomew's Hospital,—

“It may be asserted with truth that every part of the body may become under provocation, the seat of an apparent disease that in reality does not exist. It assumes all the attributes of reality, with an exactness of imitation, which nothing short of accurate and careful diagnosis can distinguish from real disease.”

“To give an example of the commonest kind. A knee joint has severe pain in it, which is aggravated by any movement. The temperature may be raised, and you leech, blister, paint with iodine, and use other violent remedies all to no purpose, because it is the nervous, not the vascular system, which is involved.”

Sir Benjamin Brodie, a man of acute observation, who made diseased joints one of his special studies, says:

“I do not hesitate to declare that at least four-fifths of the female patients who are commonly supposed to labor under diseases of the joints, labor under hysteria and nothing else.” “What has become,” says Mr. Skey, “of all those cases of diseased spine that were so common a few years since in every watering place in England, girls and men in bath chairs wheeled about everywhere, strapped and ironed and tortured with issues.”

Hysteria only was the matter, and they are now cured by tonics, stimulants and exercise. If there is in any one, constitutional weakness from bad or deficient blood, some nervous disease will probably arise, neuralgia, gastrodynia, or most likely hysteria in the first instance, but after long continuance some more serious nervous disorder. If it simulates inflammation of some local structure, and should unhappily be treated by depletion in any form, all the worse for the victim. Her or his cure is by so much rendered problematical. The mental condition of these young persons possessing low muscular and vascular systems, is one of great

excitability long before paroxysms of hysteria occur. They are irritable, easily moved to tears or laughter, they play with excess of energy, but are subject to fits of lassitude, and they are incapable of continued mental effort. Hysterical persons are in a state of reduced vigor, from a low condition of health of the nutritive system. The disease is more common in females than in males, because the nervous system of females is more excitable in the healthy state, and is rapidly increased in irritability when they become unhealthy. (See Skey and Dr. Carpenter.) The phenomena of Hysteria are reflex. There is no disease in those parts that appear affected, whether in the form of local pain, or in that of mental disorder. The pain is probably due to irritation of the spinal ganglia, the mental disorder to irritation of the cerebral lobes, and the observed phenomena are purely reflex. The irritation that excites the cerebrum or the ganglia, may be in the intestines, the uterus or elsewhere, or it may be general in the reduced powers of the system, or the depraved circulation. The acuteness of the physician will have to determine these points.

That quality which we term the "Will," may be disordered as it is frequently in hysteria. And I take the will to be nothing more than the combined and concentrated action of our brains. It is judgment and action combined, and by constant and incessant practice, it arrives at nearly instantaneous decision. It is analogous to the sum of the educated moral faculties, which we term conscience. It is like those conclusions of reflection, so rapid and accurate and well combined, that we call the result sagacity. (See the lecture of Mons. Bernard, Professor of Physiology in the College of France; *Revue des Deux Mondes*.) Still the operation of the will is not immediate. The experiments made

in Germany, also stated in the essay of Mons. R. Radau bear on this subject. Thought (I condense his statements) never springs simultaneously under the influence of an external cause. An appreciable interval of time elapses, one or two-tenths of a second, before an idea is aroused in consequence of an impression received by the brain. Impressions coming from without, are not perceived at the very instant of their production. They travel along the nerves with a speed of from sixty to ninety feet in a second; equal to the speed of the hurricane, but very much less than that of a cannon ball. For instance, we are conscious of an injury in the feet only after half a tenth of a second has elapsed; the commands of the will from the brain, pass with no greater rapidity. Limbs do not instantaneously obey the motive thought. When a movement is provoked by a shock in any part of the body, the stimulus first travels to the brain, there a thought is developed; the will sends out an order; the order is conveyed to the limb, which is bidden to act. All these three acts require three separate durations of time of an appreciable duration for each. In the human body the time is a trifle. But suppose the subject of an injury is a whale of ninety feet in length. A boat attacks it in the rear, and the harpoon is driven in; pain is sent to the brain, (nearly ninety feet,) a second is lost,—the brain returns the order to the tail to strike the boat. A trifling amount of time is used by the brain in forming the will to send this order, but the order has to travel from the head to the tail, and another second is lost. In two seconds the boat has backed astern and got out of reach. Thus the length of the animal is the chief cause of the impunity of whalers in such circumstances. Similar acts are measured by the chronoscope, and skilled observers, like Dr. Jaeger and Dr. Hirsch have found

the brain requires twenty one-hundredths interval to form its decision, between the arrival and departure of its information and its orders. These reflections and experiments show that time is necessary to form conclusions and acts of will by the brain, and that the brain is the organ from which the will emanates.

I will next allude to some experiments of Mons. Onimus, on nervous control, with a view of showing how the presence of the cerebral lobes or their absence, is associated or disassociated with the actions of animals. If the cerebral lobes are removed in animals, the movements which were possible before, are not put an end to; they only take a particular character. They are more regular, because they are deprived of *mental* influence. The animal is a locomotive apparatus without restraint, but there being no brain to originate will, the animal can not start without help or excitement. The pigeon must be thrown into the air or it will not fly. The frog must be put into the water and started, or it will not swim. The experimenter can determine such an act for the animal, limit it, or arrest it, or give it any required direction. The movement once given will continue until some obstacle interposes. The frog swims straight on until stopped by the edge of the water. The pigeon flies until it encounters something; so with the duck or goose in swimming. In fact the animal is inert living matter, unconscious, and the creature of external excitements. Deprived of both lobes, it is inert until excited. Deprived of one, like the duck with one pellet in the side of its head, the movements are rotatory. I have related these facts of Mons. Onimus, to show experimentally, how, when the cerebral lobes are removed, no excitement is originated by the animal. It must be subjected to external impulses as a substitute for the will and the mind.

I will now say a few words on the nature of the connection between the cerebral lobes, the spinal ganglia, and the actions of the individual in the natural, and in the excited state arising from disease. I can not do this better than by condensing some of Dr. Carpenter's ideas on the "Unconscious Action of the Brain." The act of breathing is a purely reflex action, and goes on when we are unconscious of exerting any effort. Most reflex actions are, to a certain extent, under the control of the will. Without this control, as to respiration, no long speech could be made, because we are able to regulate our breath, so as to make it subservient to the act of speech, but only to a certain point. No long sentence can be uttered without pausing to breathe, but still we have control over the act of respiration for the purpose of speech. This is an illustration of the way mental operations may be independent of the will, yet be under its directions.

The reflex action of the spinal ganglia are instinctive actions. The tendency to them is born with us. There are others to which we are trained, and we act through the process of bodily education, as unconsciously, methodically and regularly as in the more purely reflex actions. Take the act of walking. We all know that the child has to be taught this act, often with difficulty and time, yet when once acquired it is automatic as the act of breathing. We start on a walk, and our minds are occupied with earnest thought, and our legs continue their automatic movements without any conscious act of will. What stimulates the spinal ganglia? The mere act of the foot touching the ground conveys the stimulus to the spinal ganglia. The order is sent out to raise the foot and advance the limb for another movement, whilst the brain is occupied in operations of its own, and is unconscious of the action of the spinal

ganglia. The great ganglia of the senses, seated at the base of the skull, also convey their orders to their respective nerves, in obedience to the commands of the grey matter of the cerebral surface, sent by direct fibres to these ganglia. The great organ of thought with its complete sum, the will, sends its directions to its servants, and receives its impressions through these servants after an appreciable interval of time for its working. As these operations are carried on in the healthy state, so are they in the diseased, and that control which the will has in part over natural reflex actions, it is the duty of the physician to encourage, over hysterical reflex actions; and this persevering encouragement is the true method of cure of hysteria.

Physiologists inform us of the wonderful energy and power of corpuscular aggregations of bioplasm, (the living bases of structure,) how they enter into the formation of all animal material, and into that of cerebral substance, amongst others; how microscopically they can be seen in movement, how their abnormal movements may give rise to disease, and all its subsequent manifestations. It is therefore exceedingly possible that abnormal action of bioplasm in the grey matter of the brain, causes the various forms of insanity, according to the locality affected, and the nature of the departure from healthy action, mania in one form, dementia in another, idiocy in another. These derangements of bioplasm may be temporary, lasting but for a short period, give place to healthy movements, and again become deranged, and so account for recurrent mania, and its intervals of soundness. In mania, these changes in action of matter may take place, whilst in hysteria there may be no such changes, and the grey matter be only subject to irritation from the deranged state of the circulation, its poverty of healthy material, or some

alteration of its qualities. Or the hysteria may be caused by irritation of some other part of the ganglionic system, reflexly acting on the cerebrum. Whatever explanation is attempted, I think the cerebral symptoms are due to reflex action in hysteria, but to altered bioplastic arrangements, temporary or permanent, in mania. No doubt long continued irritation may pass into an alteration of structure, and so hysteria may pass into mania.

Suppose we imagine an illustration of these ideas. In the case of a wound in the hand, the seat of pain is in the hand, but the recognition of pain is in the cerebral lobes, for if the nerves to the hand are severed, the pain is not recognized by the cerebrum. Now suppose there is no injury in the hand, but that the origin of the same nerves in the spinal ganglia is irritated by disordered blood; then the pain is felt in the hand, although no injury exists there, and the cerebral lobes recognize reflexly, the irritation in the spinal ganglia.

Why irritation should be confined for a time to one ganglion, I know not, except that it is so, and that apparently it changes to some other ganglion, as often as the pain flits from one part to the other. But then I am equally unable to tell why the pain in acute rheumatism flits from joint to joint, although I know it does so.

Suppose, however, that the irritation is general, as it was in this child, then the cerebral lobes are affected also, and symptoms of mental disturbance show themselves in addition to hysterical pains. This seems to me a fair illustration of the facts and symptoms as they were seen in this child, and are seen in similar cases. Whether the theory is sound is another question; but theories are justifiable so long as they explain the phenomena. When they can not they must be abandoned.

The emission theory of light explained all the known phenomena for one hundred years. When it could do so no longer, it had to be abandoned for the undulatory. This is an illustration of the use of theory.

I take the case of the child related by me at Madison as one typical of hysteria in early youth. She was in poor health, ill nourished, thin blood, weak, and she looked half starved. She would not move or use her limbs, she was always talking nonsense, always complaining of pain somewhere, which lasted longest when attention was called to the locality. She slept at night. She thought white colors black, and black white, for a long time. She ate well in quantity, but often not the food most nourishing for her. She would shriek when she saw the hand approaching the seat of her fancied pain, but when not observing the hand, any extent of pressure could be borne. She got well when her bodily health became sound, and has continued well up to this time. Where do these symptoms differ from mania? First in their evanescence. They are excessive while they last, but they change daily or oftener. They are violent but quickly soften down. She slept well nightly, maniacal sufferers do not. Hysterical patients thoroughly understand all that is said to them, maniacal do not. The former give some attention, more than they appear to do, to the physicians words, maniacal rarely give any.

In maniacal people the form of violence in words or acts is continuous for the most part whilst the attack lasts. In hysteria no one can tell whether the morrow will be like to-day, most probably not. Pain when felt in mania is felt whether the attention is directed to the part or not. The reverse is the case in hysteria. In hysteria there is often obvious cause for the mental irritability, either in disease, or in altered function, or

in irritating substances elsewhere than in the brain. Mania exists without such obvious causes, although it often accompanies poor blood and feeble constitutions, and hysteria *may* also exist without obvious cause, yet rarely. The action on the brain is irritation, not change, irritation so general as to disturb the sum of the action of the organ. The will is disturbed as well as the intelligence.

I have been contrasting hysteria in children under puberty, with mania in young people over puberty; for although I have seen in the last twelve years, a few cases of hysteria in children where the mind was involved, I have seen no cases of mania under puberty, nor earlier than sixteen years of age. No doubt in populous cities there are numerous cases of hysteria in children, which are not often found in small country towns, where there are not the same unhealthy modes of life. I will now refer to some observations of Dr. Gray. He denies the distinctive differences of these two diseases, but in the cases he referred to, took his example from those who had been long suffering under their symptoms, which had gradually come on, and had developed by degrees into insanity. But notwithstanding his denial of any distinctive differences, I find that he admits that there is hysteria without insanity, and therefore he must draw the line for himself. In the 240th page of the October number of the JOURNAL, 1872, he has drawn a very marked line. He there says, hysteria is "a well marked nervous disorder in which persons may by disease be deprived of the power of using the will over the muscular system, just as I believe that the peculiar disease of the brain, which we call insanity, is one in which the ideas *and* acts, are in the main beyond the range of the will!!!" In this definition hysteria is confined to loss of will

power over the muscular system, and mania to loss of will power over ideas and acts. Acts are, I have always supposed, muscular, and therefore the definition of mania includes that of hysteria. No wonder that with this definition in his mind, Dr. Gray sees hysteria as a portion of insanity, and no wonder that when he confines hysteria to loss of will power over the muscular system, he does not recognize deranged or excited ideas, as a part of hysteria. Being totally unable to accept either of these definitions, Dr. Gray and myself can not agree on fundamentals, and therefore we are not likely to find the arguments, derived from different premises, satisfactory to each other. It is as unwise in writing as it is in the witness box to define insanity, for there can be no definition that will include all its phenomena: But in order to give Dr. Gray the liberty of criticising my definition, which he will not be slow to avail himself of, I will here state it. In my paper on Insanity in relation to Law, I gave Dr. Combe's definition, that "It is a morbid action in one, or several, or the whole of the organs of brain, and functional derangement in one, several, or the whole of the mental actions those organs subserve." I will add to this that "in insanity, whether temporary or permanent, this morbid action is temporary, or permanent *alteration* in the arrangement of the bioplasm; while in hysteria it is an *irritation* of the grey and ganglionic structures, produced by causes in action in other parts of the frame."

To arrive at this conclusion I have related the facts and experiments contained in this paper; but I am afraid I have failed to satisfy my hearers, as I am conscious that I have inadequately stated my own convictions. I have given you no new matter. I have merely attempted to bring these points in the researches of

others together, to support the opinions I entertain. Hysteria seems to me as different from mania as gastrodynia is from inflammation, or colic from enteritis. And I think that the more you give your attention to this subject, the more you will be satisfied that the two diseases are essentially distinct. The treatment I do not allude to. It was discussed last year, and may be easily inferred from the statement here made.

I have no doubt that the views expressed concerning the relation of cerebral bioplasm to mania, will again lay me open to theological accusers as a materialist, which I am not in their sense of the word; but as I believe that intelligence is as much the creation of the brain, as blood is of the organs of digestion, I am, in the physiological sense. As to life, whenever and wherever life enters into matter, whether when it is first seen in the automatic movements of the blood corpuscles, or at some preceding, or subsequent stage of being, we come sooner or later to the one great cause of all things; the will of the Creator. There is a period in all researches into living matter, when we must be convinced, that without a great Creator, living matter could never be. We are allowed to search as deeply as we are able into the mysteries that surround us, and the deeper our search extends, the more we must be convinced of an Almighty Power, that has created all things, and provided for them in continued and harmonious action and renovation.

IDEAL CHARACTERS OF THE OFFICERS OF A HOSPITAL FOR THE INSANE.

BY I. RAY, M. D.

[Read to the Association of Superintendents of North American Hospitals for the Insane, at its Annual Meeting in Baltimore, May 29, 1873, and ordered to be Printed.]

INTRODUCTION.

Prevented by a press of engagements, to say nothing of native indolence, from preparing something pertaining to our peculiar studies, worthy the attention of the Association, it occurred to me that a recent experience of mine involving matters not altogether foreign to our present thoughts, might not be inappropriate to this occasion. Without further preliminary, I will proceed to relate the circumstances and results.

A few Sundays ago I sought, as usual, the post-prandial comfort of my easy chair—the gift of a beloved brother in the craft—and looking around for something suitable for Sunday reading, I lighted upon a volume entitled “The Holy and Profane State,” by Thomas Fuller, an eminent divine of Charles the First’s time, and soon became absorbed in his sketches of various characters prominent in the social system, such as the Good Merchant, the Good Judge, the Good Soldier, the Good Physician, the Good Wife, the Good Widow, &c., in which he presents ideal representatives of certain classes of persons, endowed with many excellencies and no ostensible faults. Much as my interest was excited by these masterly portraits, it did not prevent my falling asleep. Whether this event was attributable to this surfeit of moral excellencies, or, as is more likely,

to the principal element of my meal in which, true to my Bay State training, and regardless of the old Greek philosopher who enjoined it upon his followers to abstain from beans, I had freely indulged with a zest heightened by its delicious porcine accompaniment, I know not. It is enough for me to know that I slept and dreamed. I ought to state in this connection, that during the morning a pile of hospital reports kindly sent me by their writers, which had been accumulating unread until it reached a formidable height, raised in me such a pang of self-reproach, that I determined, then and there, to be no longer a stranger to their contents, and so I went through the pile, beginning at the top, and stopping not until I reached the bottom. I mention this incident because persons with a psychological turn of mind may possibly find in it a clew to the subsequent adventure. The first thing of which I was conscious after entering the realm of dreams, was that of rummaging an old chest of drawers just bought at auction for the sake of its antiquity, which seemed to have been a receptacle of all the various family papers that had been allowed for an indefinite period to escape the waste basket. Here, among a confused mass of old bills, diaries of the weather, odd leaves of old almanacs, &c., my attention was arrested by a parcel of manuscript on which, evidently, some unusual care had been bestowed. The sheets were stitched together, and the chirography though stiff and cramped, was perfectly legible, if not elegant. The paper had that coffee-colored tint which, by arts best known to themselves, Pennsylvania politicians are said to impart to freshly made naturalization papers to give them the appearance of age. On the first glance at the running titles at the top of the pages, it occurred to me that I had encountered an old manuscript copy—perhaps the very original

itself—of worthy Thomas Fuller's treatise. I soon, however, discovered my mistake, for the writer discoursed of a description of characters that could scarcely have been known to him. I had just finished the last page when the tongs fell on the hearth, and my nap and my dream came to an end. While musing on this curious incident, I determined to reproduce from memory as much as possible of what had interested me strongly, for the edification of my professional brethren. In doing this, I found my memory sometimes at fault, which obliged me to leave frequent gaps that may here and there give a disjointed appearance to the sentences. I am sensible, too, that I have failed to catch the subtle spirit that characterized the writings of the old divine, and was reflected, as it were, from his pages upon those of this strange manuscript. Every one who has undertaken to recall a dream, must be aware how utterly impotent he is to bring back the brilliant conceptions that made the charm of the scene,—the sallies of wit that set the table in a roar, the triumphant argument that silenced an opponent, the pleasant fancies that elicited the applause of the company. So too my reproduction conveys but the faintest idea, I fear, of the shrewd discrimination, of the strong and striking thoughts, of the quaint turns of expression, and of the terse and sententious style, that delighted me so much in the original. All this must be left to the imagination of the reader, while I can only vouch for the substantial correctness of my memory so far as it goes. The first chapter was entitled—

THE GOOD SUPERINTENDENT.

The Good Superintendent hath considered well his qualifications for the office he hath assumed, and been governed, not more by a regard for his fortunes, than

by a hearty desire to benefit his fellow-men. To become capable of discerning aright the springs of mental disorder, he acquainteth himself with the ordinary movements of the mind by careful study of those famous authors, who, in various tongues, have represented men and women moved by passions, instincts and motives, as in real life; by observation of those around him, less to learn what they know than how they feel and think and act; and especially by noting those waves and eddies of public sentiment, which, at sundry times, ruffle the surface of the social system. He is aware that without such knowledge he is as liable to mistake as the pathologist would be who should search for the marks of disease on the cadaver, without knowing the looks of the healthy parts. He constantly striveth to learn what is passing in the mind of his patient, by conversation and inquiry of those who see him in his unguarded moments. He also maketh diligent inquiry respecting the bodily and mental traits of his kindred, knowing full well that the sufferer is generally more beholden to them than himself, for the evil that has fallen upon him. He endeavoreth so to limit the number committed to his care, as to obtain a personal knowledge of every wandering spirit in his keeping. He boasteth not of the multitude borne on his registers, but rather, if he boasteth at all, of the many whose experience he has discovered, whose needs he has striven to supply, whose moods, fancies and impulses he has steadily watched. To fix his hold on the confidence and good will of his patients, he spareth no effort, though it may consume his time and tax his patience, or encroach, seemingly, on the dignity of his office. A formal walk through the wards, and the ordering of a few drugs, compriseth but a small part of his means for restoring the troubled mind. To prepare for this work

and to make other means effectual, he carefully studieth the mental movements of his patients. He never grudgeth the moments spent in quiet, familiar intercourse with them, for thereby he gaineth many glimpses of their inner life, that may help him in their treatment. Among them are many sensible to manifestations of interest and good will, and the good physician esteemeth it one of the felicities of his lot, that he is able to witness their healing influence. He maketh himself the centre of their system around which they all revolve, being held in their places by the attraction of respect and confidence. To promote the great purpose of his calling, he availeth himself of all his stores of knowledge, that he may converse with his patients on matters most interesting to them, and thereby establishing with them a friendly relation.*

He alloweth not his temper to be ruffled by any storm of passion or volley of opprobrious words, but quietly retires till the storm has blown over and better feelings have returned. When importuned for indulgences not fit to be granted, he giveth no dubious answer, but uttereth a prompt refusal if need be, firm, though gentle, knowing full well that a deceptive promise irritates the spirit more than the most emphatic refusal. The unwelcome communication he ever tempereth with soft and pleasant words, thereby verifying in himself that saying respecting a worthy of old, that he made a flat refusal more agreeable than others did the most thorough compliance.

* It was this quality of our late associate, Dr. Bell, more than any warmth of feeling or charm of manner, which gave him that hold on his patients which left no place for suspicion or distrust. Whatever their experience, whatever their pursuits, whatever their past associations, he was always ready to find in them some topic wherewith to excite their interest, to turn their thoughts away from themselves, and to lay a foundation for their regard and trust.

Though ready to avail himself of the discoveries and suggestions of others, knowing that, in the nature of things, more and more light must come into the world, he is not over hasty in accepting new things, not, however, because they are new, for he is aware that all old things were once new, but lest he may chance to waste his strength on what profiteth him nothing. Nor doth he blindly oppose an idea because it squares not with his own long cherished notions, nor suffer himself to be swayed by pride of opinion or unworthy prejudice. He ever keepeth his imagination in the leash of his reason, and thereby runneth little risk of indulging in vain beliefs or useless practices.

Every man attaches certain rights to his position, and he can not see them infringed without sustaining a wound to his self-respect. This feeling our Good Superintendent is careful not to ignore in his associates, but rather endeavoreth to cherish and strengthen it. Having some confidence in their ability, and having clearly made known his wishes, he abstains from frequent interference, being willing to obtain by a fair trial the exact measure of their competence. Men are impatient at feeling the goad at every step, and under it lose all heart in their appointed work. Towards his subordinates he is equally careful to avoid a demeanor that keeps them at arm's length, and that familiarity which breeds contempt. In dealing with them as with others, he seeketh to accomplish his purpose by no arts of duplicity, but by that faith in them which is inspired by his own sincerity and truth. He maintaineth his supremacy in the little world which he governs, not by perpetually intruding it upon others, as if he should stand up and say "Lo, I am chief, and you are the servants of my will," but rather by the manifest wisdom of his arrangements and his constant regard for the rights and comforts of others.

In his intercourse with the friends of patients, he considereth that their hearts are sore and distracted with apprehension, and therefore he pardoneth their impatience and returneth a gentle answer to their unreasonable complaints. Though he abstain from holding out delusive hopes, he giveth them all the encouragement he fairly can, and by dwelling on every favorable circumstance, he breaks the force of the final shock. The ways of the charlatan he despiseth, and come what may, his feet stray not from the paths of honesty and truth. To visitors and all inquirers after patients, he is courteous and respectful, but he suffers no needless consumption of his time, and terminates the visits when everything has been said which it is proper for him to say at all.

In his intercourse with his Directors or Managers, he never forgetteth that they are his superiors, to whose will he is ever bound to render a ready submission. Precisely as he maketh his inferiors in rank responsible to him, so doth he acknowledge his responsibility to those who have been invested with power higher than his own. He regardeth it as a duty, if not a pleasure, to make them fully acquainted with all noteworthy incidents of his management. Well he knoweth that to learn from others important facts that should have been communicated by him, would justly lead them to believe that they had been treated disingenuously, if not untruthfully. Their suggestions he willingly receives, and follows if practicable, for though they may be of trivial moment, yet he thereby showeth a deference to their opinions, which will be repaid with four-fold respect for his own.

The Good Superindendent observeth and studieth not for himself alone. He recognizeth the right of his professional brethern to participate in the fruits of those

opportunities which his position affords. Them he looketh upon as a sacred trust of which he is bound to render a strict account. He, therefore, so ordereth his labors as to reserve some time, even if it be but the smallest fraction of the day, for study and reflection. The more he studies and learns, the more deeply is he impressed with the littleness of his knowledge, and the less is he disposed to indulge in any pride of opinion. While his studies and thoughts are, of necessity, directed chiefly to a special department of the healing art, he is not an indifferent observer of what is passing in the larger field of medical science, and therefore he cultivateth friendly relations with his professional brethren, displayeth an interest in their labors, and endeavoreth to inspire them with an interest in his own.

THE GOOD ASSISTANT PHYSICIAN.

The Good Assistant is never at a loss for occupation, and his constant thought is, not how little but how much he may do. His heart is in his work, and no call to recreation or rest can draw him away from it. To him the hospital is father and mother, brother and sister, sweetheart and wife. He needeth not to be told that its success depends, in no small degree, on him. Seeing the many calls on his chief that prevent his close inspection of the house and minute acquaintance with its details, he needs no bidding to take this duty upon himself. He learneth the circumstances of each particular patient, observeth the conduct of attendants and servants, and watcheth the effect of remedies, amusements and work. He hath no ambition to be independent of his superior in any matters of management, and it is no cross for him to recognize the fact of his subordination. He is slow to assume any duty that properly belongs to his chief, and when obliged by

stress of circumstances to act for him, he striveth less to please himself than to obtain his chief's approval. He spendeth much of his time with the patients,—not those only who are somewhat capable themselves of contributing pleasure, but those, less agreeable and more inert, who might derive some gratification from his efforts to entertain. Thus he becometh to them a companion and friend, to whom they can tell their troubles and look for aid and comfort. He inspireth them with confidence in the measures taken for their benefit, and by little attentions and services secureth their good will. He recognizeth his responsibility for the bodily condition of the patients, and is never surprised by changes which a closer attention would have enabled him to anticipate. Therefore, he learneth by a diligent observation the changes they undergo from time to time, and meeteth them with appropriate measures. By frequent conversation and other intercourse with them, he discovers their varying humors, their predominant desires, their new delusions, their plans and projects—all which might escape the notice of his more occupied chief. When sudden emergencies call for united effort, he is not the last to move nor the slowest to act. Then he needeth no hints nor persuasives to share the common zeal and strive for the common object.

Loyalty to his chief is an animating principle of his conduct, and therefore he escheweth all self-seeking at his expense, rejoicing rather to strengthen his hands and commend his ways and works than to recommend himself. Not that he ever palters with the truth, or winks at wrong doing. When he can not conscientiously hold his peace, he either quietly retires from the scene, or frankly and openly brings the matter of complaint before the Directors. To depreciate his chief, to diminish his influence, to lower him in the public esti-

mation, whether openly or secretly, whether by undisguised opposition or covert insinuations, are things as far from his nature as the poles are asunder.

In his intercourse with the friends of patients, he disdaineth to magnify himself, and carefully avoideth any expression of opinion but such as he knoweth to be fully in accordance with those of his superior.

In his intercourse with attendants he never impairs the respect due to his office by unseemly familiarity, nor does he fail to secure their good will and ready response to his wishes, in consequence of a reserved or haughty manner. He seeketh not to obtain their favor by making light of their transgressions, or countenancing any laxity in the performance of their duty.

The hospital he regardeth as a school of instruction, and he diligently availeth himself of the lessons it is ever ready to teach. In recording the cases, he strives to be full without redundancy, and brief without being meagre. To qualify himself for this duty, he studieth his cases closely, and neglecteth no source of information within his reach, so that the record when completed shall present, truly and faithfully, the rise, progress and termination of the disease. Not unfrequently case-books are used as evidence in courts of justice, and when his are used, neither he nor his chief is ashamed of the manner in which the work has been done, nor does he hesitate to testify to the accuracy of the statements.

To learn most completely the lessons which his cases teach, he studieth in connection with his particular observations, the works of famous writers, whereby he discovereth relations and analogies that greatly magnify the value and scope of his own personal results. To go through his routine duty without manifest fault is not enough for him, for while doing this, the Good Assist-

ant is also preparing himself for a higher field of professional labor.

THE GOOD STEWARD.

The Good Steward always beareth in mind that with the Superintendent he is engaged in the furtherance of a specific end, and he pursueth it with singleness of purpose and the strongest endeavor. Abstaining from other employments, he suffereth no other interest to come between him and that. He has content to discharge his duties acceptably, believing them worthy of the exercise of the highest talent, and fit to gratify any reasonable ambition. They quicken his higher sentiments; and his right to claim a share in the good work going on around him pleaseth him better than any attractions of business. The wishes of his superior, whose duty it is to shape the course of the enterprise in which they are embarked, are the law of his life. Subduing all petty jealousies, he faithfully executeth the plans of another, and that too with a degree of zeal and satisfaction scarcely less than any private employment would inspire. He endeavoreth honestly and earnestly to execute the designs of his superior, and he taketh no credit to himself except such as may come from success in this. He listeneth to no counsels that would separate him, in spirit or in deed, from him, and he scorneth the idea of seeming to be friendly and faithful, while he is really hostile.

Prominent in his thoughts is that of promoting all exercises of the patients deemed needful to their restoration and comfort, and he rejoiceth more over the good thus conferred than over the fine bargains he hath made or the outside improvements he hath accomplished.

In matters of business, he looketh altogether to the interests of the institution, not at all to his own, deal-

ing fairly with others, and never permitting them to deal otherwise with him. No man dares tempt him with the offer of a commission, nor beguile him with schemes of private advantage. He is slow to change the chapmen who supply him with goods, knowing that tried honesty and fair dealing are better in the end than any apparent present advantage. As a man is known by the company he keeps, so is the Good Steward exalted by the character of those with whom he habitually deals. In all his outlays, he considereth the means of the institution and the other demands made upon them, in order that things needful may not be wanting because of undue indulgence in such as might have been postponed. This thought he is careful to bear in mind when tempted to buy some fancy stock, or to enter on costly improvements. He heartily welcomes every attempt to improve, and endeavors to make it a success by whomsoever it may be proposed. From all employed under his charge, he insisteth on correctness of conduct and faithful service. In his intercourse with patients, he abstaineth from all part in their management, though never losing an opportunity to speak an encouraging word, or manifest some interest in their welfare, in all things upholding the hands of the Superintendent.

THE GOOD MATRON.

The Good Matron is deeply impressed with the importance of her calling, treating it as no holiday work, but as one demanding all her attention and all her powers. Upon her, she well knows, dependeth in large measure the comfort of every inmate of the house, and in the highest fidelity to her trust, she endeavoreth to meet its requirements. With so many to control and direct, she would scarcely look for success without

some orderly arrangement of her duties. She not only hath a place for everything and everything in its place, but she also insisteth that there shall be a place for every person within her control, and that such persons shall be in their respective places. She hath also a time for everthing, with this proviso, that at all times she is ready for those exigencies that come without appointment. Order is her law, and by it the movements of the house are maintained regularly and smoothly. By forecast and calculation she ever provideth for the future as well as the present; in summer providing for the winter, and in winter for the summer. Cleanliness she regardeth as next to Godliness. No corner or cranny escapes her search, nor are the dark places hidden from common view allowed to become receptacles for rubbish that, at last, offends more senses than one. Against all animated pests she wageth unremitting war, though at much cost of time and labor and patience. Undaunted by opposition or lukewarmness, she insisteth on the faithful observance of every rule for maintaining the cleanliness of the house, and visiteth every infraction thereof with her hottest displeasure.

Punctuality is another of her virtues, and she not only giveth to all their meat in due season, but she enhanceth the worth of every service by its prompt performance. In her dealings with servants and in her intercourse with all, she securèth their respect by respecting herself. Under all her provocations and discouragements, she keepeth the even tenor of her way, and bearing in mind her own shortcomings, she expecteth no perfection in others. Drawn, sometimes, into intercourse with the friends of patients, she leaveth a favorable impression of disposition and manners, that reflecteth credit on the house. While dispensing in-

formation she keepeth strictly within her own province, putting forth no opinion touching the patient's disorder, and refraining from whatever might excite uneasiness or provoke discussion. She careth especially for the sick and infirm, and thinketh no pains too great in providing for their comfort. For this purpose she relieth not on second-hand service, but seeth with her own eyes and heareth with her own ears. The humors and caprices, the fancies and petulances of the disordered minds, she meeteth quietly and gently, and with a smooth answer or a discreet silence averteth an outbreak of wrath. She never wearies of devising little schemes for their gratification, and considereth no time as ill-spent, no labor lost, which helps to vary and cheer the monotony of their daily life. At all times and under all circumstances, she maintaineth the proprieties of her office—always a lady whether in parlor or kitchen—whether in gay attire or in coarse.

THE GOOD WIFE OF THE SUPERINTENDENT.

The Good Wife of the Superintendent, though holding no office, yet playeth no insignificant part in the economy of the hospital. With her whole heart and strength she sympathizeth with her husband, appreciating the worth of his labors, and upholding his hands. To her as to no other he can reveal his plans, his trials and his hopes, and from her he obtaineth support and encouragement that no one else can give. In many ways which feminine ingenuity readily suggesteth, she helps to promote his work, and the opportunity therefor she regards as a sacred trust to be faithfully administered. To this all other objects have become subordinate, and henceforth to her the question of life is, not how much she can achieve for herself, but how much she can do for those afflicted ones appealing in-

cessantly for help. Untrammelled by the requirements of an office, she appeareth among them simply as a friend, ready and willing to serve them by such friendly ministrations as their respective circumstances may indicate, and her own opportunities will allow. Her gentle ways and cheering words are often balm to the troubled soul, and they may prove to be the foremost of those regenerating influences which lead on to perfect recovery. She promoteth social gatherings, where the images and expressions of a disordered imagination give place, for the time, to healthier thoughts, to ordinary ways and to natural feelings. Even her mere presence in the little circles that gather within the ward is a benediction, for then the voice of complaint is hushed, and the burden of sorrow bears less heavily on the distracted spirit. When all the contrivances of skill and the arts of kindness prove to be of no avail, she is not dismayed, but waiteth and watcheth for a more favorable season. She delighteth not in gossip, and is careful how she alludes to the delusions, fancies or crazy acts of those around her. Their history, if she know it, is to her a sealed volume, and no vulgar curiosity tempts her to learn what may as well remain within the lids of the case book. She avoideth interference with other people's work, seeing that harmonious co-operation dependeth on a strict observance of rules and a thorough respect for another's rights. She thinketh not, because of her domestic relation, to set herself above all rules and be a law unto herself. In her bearing toward those in the humbler spheres of employment, she avoideth the extremes of undue familiarity and a distant reserve. To maintain the position she may rightfully claim, she relieth not on forward airs or a stately demeanor, but rather on the daily beauty of her life.

THE GOOD ATTENDANT.

The Good Attendant never shirketh his appointed work, and it is not in him to be satisfied with just that measure of performance which will enable him to keep his place. He elevateth his employment by the manner in which he performeth its duties. Though offensive to the senses, or trying to the temper, or exhaustive of patience, as many of them are, yet he meeteth them all faithfully and promptly. Like every true man and true woman, he findeth that dignity inherent in every good work, that ennobles even the meanest service. As the good artizan rejoiceth over some choice specimen of his craft, wrought by his own hand, so doth the Good Attendant rejoice when, after much toil and trial, he seeth the mind of his patient coming out from under the cloud. To hasten this blessed consummation, he spareth neither time nor trouble, rendering every attention needful for the bodily comfort, and by unceasing acts of kindness soothing the troubled spirit. The Good Attendant is ever gentle in his words and ways, and under no provocation will he return a blow or an abusive word. Unlike the people of former times who believed that the insane must first be made to feel that they have a master in their keeper, and for this purpose resorted to threats and blows, he seeketh to obtain the desirable control by gaining the patient's respect, and this he well knoweth will not follow angry words, or harsh measures, or any form of intimidation.

The Good Attendant never attempteth to reason his patient out of his false beliefs, and, as far as practicable, he preventeth him from conversing about them. He knoweth that argument giveth them additional strength, besides exciting and souring the temper. He refraineth from joking on the notions or circumstances of his patient, for he hath learned that the disordered mind is

impervious to a joke, but rather construes one into an insult. He is careful to observe every change bodily or mental, for better or worse, and maketh due report thereof to the physicians. His constant presence with the patients giveth him opportunity to see and to hear much that may escape the attention of the officers in their casual visits, and his eyes and ears are ever open for this purpose. Especially doth he endeavor to inspire his charge with confidence in the physicians, always holding them up as his friends and protectors, who will never see him wronged or injured. When abroad he refraineth from entertaining company with the fancies or conduct of his patients, nor is he swift to pour into itching ears the gossip of the house. The rules made for the government of attendants, he faithfully follows, bound thereto by a sense of respect for himself and of fair dealing with his employers.

The Good Attendant avoideth all vulgar ways in language, dress, or demeanor, as well as all familiarities which he would never venture upon outside of the hospital. He beareth in mind that the people who have fallen to his charge, however perverted or degraded by disease, were once as good as himself, if not better, and have done nothing to forfeit their claims to his respect and protection. For deficiencies of culture and of good breeding, he more than maketh up by gentle words, acts of kindness and little attentions. Especially is the female attendant careful not to add fresh poignancy to the sorrows of her charge by coarse expressions, untidy ways, and manners utterly devoid of refinement.

THE GOOD DIRECTOR.

The Good Director hath accepted his office, not solely as a token of honor or of kindness, or to be an ornamental appendage to a list of other names, but as a field

for active, intelligent, useful work in the service of humanity. He taketh his duties upon him, determined to discharge them to the best of his ability, and to allow no flimsy excuse to turn him from their regular performance. He is deeply interested in the welfare of the unfortunates for whose comfort he hath made himself in some measure responsible, and is distressed by none of those delicate sensibilities which are offended by the sight of misery. While he patiently listeneth to their complaints, he formeth no judgment and maketh no promise, until enlightened by farther inquiry; because he is sure there is a reason for whatever is alleged in spite of appearances, and he is bound to know what it is. However reasonable the patient may appear, he never forgetteth that circumstances may render compliance with his requests prejudicial to his best good. His protestations that he was never insane, but only the victim of malevolence; or that he is ill used by attendants and doctors, and subjected to all manner of hardship, disturbeth not the even balance of the Good Director's judgment and feelings. He declineth to carry messages or letters to or from patients, as well as invitations to this or that person to visit them. He maketh no promises hastily or incautiously, but when once made he faithfully performs them.

His stated visits are never omitted except for the most imperative reasons. He would sooner allow his note in bank to go to protest than to let such an omission appear on the records of the hospital. He confineth not his visits to stated periods, but maketh many informally and without notice. In this manner he seeth the hospital in various aspects, and extendeth his knowledge of its operations. He thus learns to distinguish what is accidental and temporary from that which is habitual and systematic. He seeth in some

degree how its results are obtained, as well as the spirit which guides and governs its movements. In this way he learns to appreciate justly the labors of the officers, the difficulties they are under, and the trials they sustain. He thus learns also how far their apparent short-comings proceed from incompetence, and how far they may be attributed to the peculiar nature of their duties. He entertaineth a higher notion of his office than to suppose that its sole object is the discovery of faults or occasions of criticism. And so his visits are not made in the spirit of a detective on the track of an old offender, but rather of an earnest and judicious friend prepared to discriminate wisely, and to commend and encourage whatever is indicative of zeal, industry, intelligence, high aims and steady progress. He esteemeth it a privilege and a blessing to aid by all the means in his power in this signal service of humanity, and yieldeth no grudging support to the Superintendent in his plans of improvement. He regardeth it as no part of his duty to interfere with any work that properly belongs to the Superintendent, well knowing that such interference is sure to create ill-feeling, to impair responsibility, and frustrate the object sought for.

When the public is alarmed by stories of wrongdoing, he is ready to say, on the strength of his own personal knowledge, that such stories are without any other foundation than that of a distorted reason or depraved imagination. And so when the wrath of men is kindled and the public clamor is loud, he is never led by lack of knowledge or of honesty to cast off all responsibility and make a scape-goat of the Superintendent. He resteth on the conviction that the latter is right, and waiteth serenely for the better judgment of the future.

Much as he is attached to the hospital, he never per-

suadeth himself that it is exempt from deficiencies and in all things worthy of imitation. On the contrary, he believeth that no work of mortal hand or head is beyond the reach of improvement, and so thinking he visiteth other establishments, in the hope of finding something that may be profitably adopted at home. All *nil admirari* feeling is left behind, and whatever meets his notice is viewed in a teachable disposition.

ERGOT IN THE TREATMENT OF NERVOUS DISEASES.

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For some time past we have been pursuing investigations with this drug, similar to those with conium, presented in the last number of the JOURNAL.

The different preparations used, were the fluid extract prepared by Squibb, and the aqueous extract, or ergotine, made by Merck, of Vienna. The dose of the former is from one to two drachms; the latter from six to ten grains. One drachm of the alcoholic extract of Squibb's preparation is equal to about six grains of the ergotine. We have also used a few ounces of a solid extract, made by Squibb, which is about equal in strength to imported ergotine.

We have taken a number of pulse traces, noting the increase in frequency of the beats. The temperature has been recorded with no marked change. The full physiological effect of ergot will last from one-half to three-quarters of an hour.

Our certain knowledge of drugs is limited; comparatively little is known of the true *modus operandi* of

this one, though it has been in use for centuries. We present a few thoughts, hoping they may be of use to the busy practitioner; some may not be wholly original, while a new theory may be advanced, which will cause thought to the careful observer. Until within a recent period, ergot was mainly used in obstetric practice, but with increased scientific knowledge, it has been successfully applied in various conditions of disease. Ergot is admitted, by the best observers, to act directly upon unstriated muscular fibre; thus it is that ergot produces its peculiar effect on the uterus, the unstriated fibres of the bladder, the muscular layers of the intestines, and especially upon the muscular coats of the blood-vessels. Its action upon the heart is not doubted, although it is not composed of unstriated fibre. Ergotine may act in two ways: First, directly on muscular fibre, in the same way as any other stimulant; Second, through the nervous system, principally the ganglionic. The immediate effect of ergotine on the blood-vessels is marked and rapid, the pulse is increased in force and volume; the slow and wavering pulse becomes full and strong. This can be further ascertained by injecting ergotine into the bat or frog, first observing the circulation in the wing of the bat, and web of the frog's foot; before the injection the circulation is slow; the vessels are tortuous; in a few seconds afterwards the circulation is increased, and there are visible contractions of the vessels; in about ten minutes the vessels assume the condition in which they remain till the effect has passed off.

The power of ergotine is manifest, from its value as a hæmostatic, in reducing the size of blood-vessels. Jacobi, who has used it in fevers, says: "Many cases of obstinate, intermittent fever will, when no longer benefitted by quinine and arsenic, yield to ergotine." It is

highly recommended in infantile paralysis, dependent upon congestion of the cord; that is, dilatation of the blood-vessels, and usually with hæmorrhage taking place in the vertebral canal. In chorea, or St. Vitus' dance with a congestion of the spinal cord, marked by intense pain, its use is unquestionable, and our experience only goes to show the correctness of many other observers. The reason, I suppose, why ergot has not been more generally used, was due largely to the old idea, that it produced gangrene of the limbs, the features of which are represented by coldness, rigidity, anæsthesia and sphacelus of those parts which suffer from it. This idea (we think we may safely call it an idea) is gradually losing ground. The symptoms of cerebral anæmia quite correspond with ergotism, namely: giddiness, dimness of vision, insensibility, tremor, paralysis and coma. Donders has proved that contraction of the vessels of the *pia mater* is caused by irritation of the sympathetic nerves of the neck. It is through this power of producing contractibility that ergotine appears to act, not only as a poison, but as a curative agent. Its action is as well marked in health as in disease. It is claimed that where ergotine is injected in a vein, paralysis of the heart follows; when taken internally, in the form of alcoholic extract, it often causes colic. This can be readily obviated by combining it with conium. After all that has been said, some no doubt will claim that it resolves itself into a state of congestion, no matter what the disease is, and that unless there is an increased amount of blood, or a congested state, there is no use of giving ergotine. I suppose there are no two similar cases of cerebral hyperæmia; at least, having seen a large number of post mortem examinations of acute mania, with congestion, no two were in all respects alike. Taking the cases of insanity

in which Dr. Browne has used ergot, we have confusion of thought, melancholy, headache, &c., but the difference in the symptoms of the various cases, does not constitute any ground for believing they are not all referrible to a determination of blood to the head, as in each we have throbbing of the arteries, often suffusion of the eyes, and headache. The suddenness of the paroxysms in insanity, and the rapidity with which they subside, would seem to indicate that there is congestion, though frequent attacks may ultimately produce organic changes. In cases of excitement or shock, whether it be in the form of mania or not, there often is dilatation of the cerebral blood-vessels, caused by a rush of blood to the head; these are proper cases for the use of ergotine. We owe most of our definite knowledge of the effects of ergotine on the nervous system, to Brown-Séguard. He used it largely in most all diseases of the nervous system. In paraplegia and myelitis we have a congestion of the spinal cord and meninges; in these cases he has found most beneficial results. Brown-Séguard says, (we condense his statements,) experiments upon animals have shown me, in the most positive manner, that ergot and belladonna are powerful excitants of unstriated muscular fibres, in blood-vessels, &c.; both dilate the pupil, but each of them has more power in certain parts than the other; so we find belladonna acting more than ergot, on the blood-vessels of the iris, (which is the principal cause of dilatation of the pupil;) on the blood-vessels of the breast, (which is the cause of the cessation of the secretion of milk;) on the sphincter of the bladder, (which is the cause of its success in cases of nocturnal incontinence of urine.) On the contrary, we find ergot acts, more than belladonna, on the muscular fibres of the womb, and on the blood-vessels of the cord, &c. The same author says,

he has seen the diminution in the calibre of the blood-vessels of the *pia mater* of the spinal cord, taking place in dogs, after they had taken large doses of ergot. He also observes that the reflex power of the spinal cord becomes very much diminished under the influence of this drug, which in so doing, acts just in the opposite way to that of strychniæ.

Taking what Brown-Séquard has said, and our own experiments, we are able to say positively that ergotine reduces the calibre of blood-vessels, whether it be in paraplegia, with congestion, or in simple congestion of the cord uncomplicated. We know of no medicine so appropriate, or likely to do so much good as ergotine, administered in large doses, three times a day. In cases of acute congestion and meningitis, with intense pain and heat, due to the distention of the blood-vessels, with a sense of fullness and throbbing, the patients complaining that their heads would burst, ergotine has been administered and continued during the acute stage. In a few instances the delirium lasted but a few hours, these symptoms subsided, and the patients made a good recovery. In these cases we gave ergotine, from six to twelve grains daily, in divided doses of three grains each, and continued for about a week. From Brown-Séquard's observations we notice he has given it in much smaller doses, with very beneficial results. In chronic meningitis, with chronic insanity, where there are acute paroxysms, there is almost constantly intense pain and headache, and often soreness, on pressure, over the spinal cord and medulla oblongata. In congestion of the spinal cord, as well as in the meninges, (which is a very common disease among women, chiefly on account of the greater number of inductive causes,) it is wonderful to see the rapidity of its action, and the amount of actual good obtained from its early

and judicious use; if given at the commencement of the disease, we may entertain strong hopes for an ultimate favorable result.

In neuralgia, Dr. Woakes was among the first to use ergotine. He says in his pointed way of explanation, that regarding shingles as more or less illustrative of all forms of neuralgia, he referred the rash, and pain in it, to the same cause, viz.: effusion of *liquor sanguinis* from the ultimate branches of the artery, in the track in which the symptoms appear. Tracing this artery to the skin in one direction, the effusion from a papillary arterial twig was seen to occasion a spot of herpes upon the cuticular surface of the papilla; tracing it in the direction of the corresponding sentient nerve, the fluid effused from the nutrient twigs (*vasa nervosum*) supplying it, was found to occasion, by its mechanical disturbance of the sentient fibrillæ, the severe pain constituting the associated neuralgia. The cause of the effusion in such cases was referred to a temporary suspension of the regulating influence exercised over the minute arteries, by the sympathetic nerve fibres distributed to them. It was this suspended function that the ergotine was supposed to restore, and so to allow of the removal of the fluid from its pain causing situation. He reports five cases: one of severe neuralgia following shingles; one of sciatica of four months' duration; one of hemicrania, and two of ordinary tic douloureux. In all these cases, he says, "cure resulted in from four to six days after the commencement of ergotine."

Dr. Browne, who has an extended experience of over six years with the use of ergot in the treatment of insanity, has found it useful in: (1.) Recurrent mania; (2.) Chronic mania, with lucid intervals; (3.) Epileptic mania. He has found it almost uniformly effica-

cious in reducing excitement, in shortening the attacks, in widening the intervals between them, and occasionally, in altogether preventing their recurrence. Dr. Browne fortifies his arguments by presenting a number of cases, in which its success can not be doubted.

M. Langenbeck, who has experience in the treatment of aneurism with ergotine, records the case of a man, aged forty-five, with subclavicular aneurism of the right side. A tumor had formed, the size of a small apple; the patient was deprived of sleep, in consequence of the violence of the pain. In January he injected one-half a grain of the aqueous extract of ergot under the skin, and covered the tumor with forty grains of ergotine, one hundred grains of glycerine and one hundred grains of alcohol; the day following a diminution of the swelling was observed. From the sixth of January to the seventeenth of February, about thirty-five grains of ergotine had been injected, the injections being made every third day, and the quantity injected varying from one-half to one-and-a-half grains; gradual improvement followed, and the tumor was diminished in size. He reports another case in which the aneurism, the size of a nut, on the right radial was cured. Dr. Wey has obtained good results, from hypodermic use of ergotine in fibrous tumors.

There is probably no condition so annoying to the patient as headache, and certainly it is the most common. In the following forms we have used ergotine with much benefit and comfort to the patient:

- (1.) Headache, depending on plethora or fullness of blood.
- (2.) Headache from anæmia.
- (3.) Headaches, depending on changes in brain substance and the membranes.
- (4.) Epileptic headaches.
- (5.) Migraine.
- (6.) Headache, depending on disordered menstruation.

The most common form of headache is the first, or that depending on a plethoric condition of the blood-vessels of the brain. Of course we can not estimate correctly, the amount of pain endured at each sickness, but it depends largely upon the constitutional character and nervous susceptibility of the patient. In plethoric headaches the course is either very short, (a few hours at most,) or they last for some days; the pain is usually referrible to the back of the head, and there is much throbbing of the temporal arteries. In this class of headaches we have used ergotine largely; about one hundred patients have been prescribed for, and in almost every instance relief was given in less than half an hour, and the attack thoroughly cut short.

In headache from an anæmic condition of the brain, the blood-vessels are usually lax, and, as a consequence, there is a slowness of the circulation. Ergotine contracts the blood-vessels, thereby giving tone to the arterial system; the blood is forced more quickly and regularly through the brain, and of course in greater quantity.

Our cases of cerebral anæmia are comparatively few, and experiments are, therefore, limited, yet in those cases where we have had an opportunity of using it, happy results have followed.

In epileptic headaches, and in epilepsy, we have used ergot largely. In *petit mal*, there are muscular twitchings, congestion of the face, suffusion of the eyes, and a rush of blood to the head. We have in many of these cases been able to ward off the *grand mal*, by large doses of ergotine. We have often combined it with conium, and it seems in this combination to work even more satisfactorily than alone, which is chiefly due, we suppose, to the sedative effect of the conium.

In migraine, or sick headache, we have distended

blood-vessels pressing on the opthalmic division of the fifth nerve, thereby causing the pain; and if we accept this theory, then ergotine, by contracting the blood-vessels, will relieve the headache.

In headaches depending upon some disordered condition of menstruation, we usually have a fullness or congestion of the cerebral vessels; sometimes, however, it may occur from anæmia of the brain. In both forms the use of ergotine is beneficial. We present the following case, as being one full of interest, and showing in the most positive manner, the good result obtained from ergotine.

Man, age twenty-six, of full plethoric habit. For about ten years previously, has had periodic attacks of headache, coming on in the afternoon of each day, about three o'clock, and lasting for an hour or two. He described the pain as beginning in the frontal region, and rapidly extending to the occipital; the throbbing of the temporal arteries was both marked and prominent; almost all known remedies were tried, with only temporary relief. About four months ago, while suffering one of these intense paroxysms of pain, was given three grains of ergotine; in a very short time the pain was very much lessened. The day following had another attack, and this time took six grains; in less than twenty minutes all pain had subsided, and the patient said he felt much better than he did before he had any symptoms of the attack. From that time until the present, has continued to take two grains of ergotine, with one grain of quinine, before each meal. Our patient assures us that he has not had a return of the headaches since the ergotine treatment was begun, and that his mind is more active, and his general health better than at any time in years past.

We have a large number of similar cases, in which

the same beneficial result was obtained. Before presenting our cases, we give a few conclusions arrived at; many more might be presented, but we give only the more important.

(1.) Benefit of combination with bromide of potassium in epilepsy.

(2.) It is apt to produce cramps and pain in the stomach, which is remedied by combination with conium.

(3.) In nervous diseases it soothes all renal irritation and catarrh of the bladder.

(4.) It dilates the pupil sufficiently to be noticed.

(5.) Increases both frequency and tension of the pulse.

(6.) Has no appreciable effect on the heat of the body.

(7.) In large doses it produces the same effect as conium, by inducing sleep.

(8.) Its beneficial action in delirium tremens, after bromide of potassium has failed.

(9.) It combines readily in form of pill, with sulphate of quinine.

(10.) It is a cerebral sedative.

(11.) Ergotine possesses an advantage over the alcoholic extract, in not producing any pain or cramp in the stomach, and is given in smaller quantity.

(12.) Ergot is not likely to be adulterated, and we always secure an appreciable effect after its administration.

We now present a few cases in which our readers will observe its marked and beneficial effect.

CASE I. Woman, age fifty, married, housekeeper; no hereditary tendency to insanity. Patient usually enjoyed good general health, until July, 1872, when she had an attack of melancholia; she remained at home until April, 1873, when she was brought to the Asylum. On admission she was frenzied and maniacal at times, incoherent in conversation, and talkative; had no appreciation of her condition. She complained of a fullness of her head, and frequently pressed it with her hands; said she knew it would burst; eyes intensely

injected. The pain she referred to the frontal region. Succus conii and the fluid extract of ergot were administered, three times a day, for nearly a month, when the conium was discontinued, and a half drachm of the fluid extract of ergot continued before each meal. The conium, in this case, controlled the motor activity, and the ergot lessened the amount of congestion. The patient is now well, and is free from all pain and headache.

CASE II. Woman, age fifty, widow, housekeeper; insanity not hereditary. Patient has had three attacks of insanity, and been a patient in the Asylum each time, and discharged recovered. On admission was excited, noisy and maniacal; was in good state of flesh, pulse full, face florid, eyes injected; complained of pain in head and headache. For the first week after admission took conium; it was then stopped and replaced by fluid extract of ergot in half drachm doses, night and morning. She at once began to improve and the excitement abated; this continued and she made a rapid recovery, after remaining in the Asylum six weeks; she remained under treatment a much shorter time than during any previous attack.

CASE III. Woman, age fifty, married, housekeeper; insanity not hereditary. Patient has been in delicate health for some years; and was always pale, anæmic and thin in flesh. Symptoms of insanity were developed ten days before coming to the Asylum, in March, 1873. On admission was wild and maniacal. She was at once put on fluid extract of ergot, in half drachm doses, three times a day, and conium at night, as a sedative. The excitement at once began to subside, and after remaining in the Asylum six weeks, she recovered.

CASE IV. Woman, age thirty, married. For five years has had chlorosis, and suffered intense headaches

and pain in the head, which were increased at each menstrual period. Remedies of various kinds were given, but without any good result. During the past four months has been taking a pill of three grains of ergotine and one grain of sulphate of quinine, three times a day. She has not suffered from headache since this treatment was begun, has gained in flesh and appetite, and regained her normal color.

CASE V. Woman, age eighteen, single. Patient was always a healthy girl up to fifteen years, when she was attacked with epilepsy, both *grand* and *petit mal*. The fits occurred as often as two or three a day. She had taken largely of bromide of potassium and other remedies, but the fits only increased. In January last, was put on fluid extract of ergot, in half drachm doses, three times a day. Since the commencement of this treatment patient has only had one slight attack of *petit mal*. Her first menstruation took place after she had taken the ergot two weeks. She has menstruated regularly since.

CASE VI. Man, age fifty-five, married. Patient was a man of good habits and of a nervous temperament. Had an attack of cerebro-spinal meningitis, and after the first few days, maniacal delirium. He was put on alterative treatment and sedatives, but steadily grew worse. After about two weeks had lost flesh; delirium was milder, but continued; the limbs were in constant motion, at times he whirled over suddenly in bed, raised himself up and fell back; eyes congested and dry; skin dry, lower extremities cold, pulse from 110 to 130. At this time was put on the fluid extract of ergot, in half drachm doses, three times a day, with tincture of hyoscyamus at night. This treatment was continued for about two months; he steadily improved, and at the end of that time had fully recovered.

CASE VII. Man, age forty, married. Patient had epilepsy, severe convulsions every few days, and attacks of *petit mal* daily. He was emaciated, feeble, and had lost in mental strength. Had been treated on Brown-Séquard's mixture of the bromides without benefit. Began by taking six grains of ergotine daily, and an emulsion of cod-liver oil. The ergotine was increased in two weeks, to eighteen grains daily, with the most marked benefit; from that time, he had no attacks of *grand mal*, and the attacks of *petit mal* were lessened in frequency. The ergotine was carried to thirty-two grains daily, and subsequently, the fluid extract was substituted in thirty drop doses, three times a day. At time of writing he has been under this treatment nine months, and has only had one attack of *petit mal* since, and is in good general health.

CASE VIII. Man, age thirty-six, married. Patient has had epileptic attacks on an average once a month, for two years, and for several months attacks of *petit mal*. He was put on fluid extract of ergot, in the fall of 1871; after the first month the seizures ceased. The patient, under the impression that he was to continue the treatment, took the ergot for one year; he then reported himself, and said he had no attack during that time, and that he was in excellent health.

CASE IX. Man, age twenty-eight, married; in the spring of 1870, had an epileptic fit on getting up in the morning; after a few days, had another, and for a month had an attack every morning. He was given thirty drops of the fluid extract of ergot, three times a day, which was continued for four months, during which time, and since, he has had no return of the attacks.

CASE X. Woman, age thirty-one, married, house-keeper. Patient usually enjoyed good health, but was

always of a nervous temperament. She is the mother of five children. The first child, born in 1861, had a natural labor; after about three weeks she had an epileptic fit, and during the month following had a number. During each pregnancy she had no fits, but after each confinement had several epileptic attacks. Last child born in January; was in her usual health till April 15, when she had a severe attack of *grand mal*. Her husband was then taken sick and she nursed him for two weeks, after which occurred another severe fit, when she became maniacal and incoherent, and had to be restrained. Attacks followed from this time daily, till the first of May. There was then marked mental impairment, with the characteristic epileptic expression. She came under my observation early in May, and was in a state of bewilderment, with marked loss of memory, and dilatation of the pupils; eyes glassy, face florid and somewhat congested; complained of pain in back of head; she had no appreciation of her condition, nor recollection that she had ever had a fit. Was at once put on bromide of potassium, twenty grains, and half a drachm of the fluid extract of ergot, three times a day, which is being continued at the present time. Since the first of May she has had one slight attack of *petit mal*; has improved in general health; pupils less dilated, and expression nearly natural.

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MAINE: *Report of the Maine Insane Hospital*: 1872. Dr. HENRY M. HARLOW.

There were remaining in the Hospital, at date of last report, 368 patients. Admitted since, 202. Total, 570. Discharged recovered, 79. Improved, 34. Unimproved, 19. Died, 45. Total, 177. Remaining under treatment, 393.

Again the Legislature is requested to make provision for the constantly increasing number of patients. Accommodations for 350 are always occupied by 393 patients. The Trustees and Superintendent urge the erection of another building in immediate proximity to the present one. The Chapel which is still in an unfinished condition, was located in front of the Hospital building. To many, the site seemed a very objectionable one, and the Legislature passed an order directing that the expense of its removal be ascertained, and a report made at the next session. Efforts made to carry out the order have thus far proved unsuccessful, and here the matter rests. From the treasurer's report, the finances of the Asylum are in an excellent condition. There is a cash surplus on hand of \$12,000, and \$17,000 are due the Institution. In view of this favorable financial state the Trustees have reduced the price of board, from \$4.00 to \$3.75, per week. The appointment of an additional assistant, is requested from the Legislature.

VERMONT. *Biennial Report of the Vermont Asylum for the Insane*: 1871-2. Dr. W. H. ROCKWELL.

There were remaining in the Asylum, at date of last report, 518 patients. Admitted since, 240. Total, 758. Discharged recovered, 99. Improved, 48. Unimproved, 43. Died, 74. Total, 264. Remaining under treatment, 495.

MASSACHUSETTS. *Fortieth Annual Report of the State Lunatic Hospital at Worcester*: 1872. Dr. BARNARD D. EASTMAN.

There were in the Hospital, at date of last report, 421 patients. Admitted since, 443. Total, 864. Discharged recovered, 145. Improved, 192. Unimproved, 48. Died, 40. Total, 425. Remaining under treatment, 439.

Report is made of the progress in perfecting the plan for the new hospital buildings, (this was noticed in the January number of the JOURNAL,) as also the retirement of Dr. Bemis, and the appointment of Dr. B. D. Eastman formerly of the Government Hospital for Insane, at Washington.

MASSACHUSETTS. *Nineteenth Annual Report of the State Lunatic Hospital at Taunton*: 1872. Dr. W. W. GODDING.

There were in the Hospital, at date of last report, 382 patients. Admitted since, 446. Total, 828. Discharged recovered, 105. Improved, 167. Unimproved, 91. Died, 51. Total, 414. Remaining under treatment, 414.

Regarding the admissions of the year the Doctor remarks:

Of the admissions during the past year, nine per cent. were above the age of sixty years. A large number of these have been cases of senility, passing into dementia. These cases are often characterized by brief periods of considerable excitement, which

no doubt increase the difficulty of providing for them at home; yet, in view of the hopelessness of cure, the danger from any decided change in the habits and ways of life in the aged, their probable early decease in any event, we think the attending physician will do well to be very cautious in advising their removal to a hospital. We should be insensible to flattery, if it were not gratifying to us to hear friends, after visiting some old lady who is tottering over the "insuperable threshold," say, "Well, she is more comfortable than we could make her at home;" but we may be allowed to question if it is the fact; or if it be a fact, if the ministrations of hired nurses, trained indeed to be careful and kind, but still strangers to them, are more tender than the hands of her own children to their mother in the helpless infirmities of her age, then we are sorry for the truth. It is sad to have outlived the love of one's children. Old age should be garnered at home. Surrounded by those whose helpless years they never tired in caring for, their growing infirmities should not become a burden. Gradually withdrawing from the world without, let them find no lack of warmth within. So, sustained when they falter, letting go of life with warm hands clasped in theirs, their eyes in the failing light missing no bowed heads about them, may they come to peace at last!

An addition to the present building is strongly urged to give accommodation for 500 patients. The buildings as now arranged afford a very imperfect classification, there being but four wards for each sex; one of these is quite small, and the others contain from sixty to seventy patients each. There are 102 single rooms for patients, and 69 associate dormitories. A larger number of wards and of single rooms are imperatively demanded. Under the existing law the quiet and harmless are removed to the chronic Institution at Tewksbury, which throws the heavier burden of the care of the violent and disturbed class upon the Asylum. Constantly increasing admissions require the removal of a large number who have not completed their recovery; this accounts for the great per centage discharged improved. There are other defects arising

from the original construction of the building in the rectangular form. The more quiet and convalescent classes are constantly disturbed by the noise of the excited and turbulent.

A history is given of the efforts made during the time of the existence of the Institution, looking to the erection of an asylum for the convict and criminal insane of the State. These are still provided for in the ordinary State hospitals to the great detriment of all classes of patients. This whole matter is being thoroughly ventilated, and it is to be desired may result in some action on the part of the authorities. Some improvements have been made in heating, and additional means provided against the danger from fires by the use of fire extinguishers, and telegraphic connection with the city.

MASSACHUSETTS. *Fifty-fifth Annual Report of the McLean Asylum for the Insane: 1872.* Dr. GEORGE F. JELLY.

There were in the Asylum, at date of last report, 172 patients. Admitted since, 93. Total, 265. Discharged recovered, 15. Improved, 37. Unimproved, 26. Died, 23. Total, 101. Remaining under treatment, 164.

Much attention has been paid to furnishing means for amusement and recreation to the patients. The facilities for riding have been increased, three new carriages and two spans of horses having been purchased. Open air concerts have been given, and the patients, have employed their time in games, and out of door sports. Dr. O. F. Rogers, Assistant Physician resigned his position in January last. The vacancy was filled by the appointment of Dr. Charles F. Folsom.

MASSACHUSETTS. *Seventeenth Annual Report of the State Lunatic Hospital at Northampton: 1872.* Dr. PLINY EARLE.

There were in the Hospital, at date of last report, 420 patients. Admitted since, 199. Total, 619. Dis-

charged recovered, 40. Improved, 60. Unimproved, 49. Died, 37. Total, 186. Remaining under treatment, 433.

Dr. Earle discusses the question, "Does Massachusetts need another Hospital?—and proves conclusively that from the facts,—all the State hospitals are at present overcrowded, and the receptacle prepared for the insane at Tewksbury is filled, and that there is a steady increase in the number of applicants for treatment, and from experience in other countries relating to the increase of insanity,—that Massachusetts to-day is in need of another institution, and that soon this number will have to be increased.

In regard to the kind of institution, he urges, with strong arguments, the erection of the *hospital*, so called, in distinction from the colony or cottage plan, as recommended by Dr. Bemis, of Worcester, and Dr. McFarland, of Illinois. We quote from the report some of his remarks regarding these alleged improved methods of treating the insane.

But in my apprehension they are not adapted to the people of Massachusetts. To render a colony like that of Gheel a possibility, one of the primary conditions must be a very different relationship between labor and capital from that which exists in this State. In old and populous countries, where hands are more numerous than work is abundant, where toil is repaid with but its pittance, and where the inhabitants of the rural districts and villages are bred to a severe simplicity of life and an economy of habit which are the necessary consequents of the excess of laborers, such a place may be created; but not here. Destroy to-day in Massachusetts all her railroads; burn all her mills in which cotton, wool, iron and leather are converted into the necessities, the conveniences, the comforts and luxuries of life; annihilate every sewing-machine; take from the farmers the mowing-machine and all the other modern improvements by which the useful production, by a given amount of human labor, has been so marvelously increased; and in each of these instances make a reparation of the things destroyed or taken away an impossibility; prevent all emi-

gration from the State, but receive every immigrant who would have the hardihood to come; and finally, reduce the rate of interest to three per cent., and perhaps fifty years hence the philanthropist might attempt a Gheel with some prospect of success.

The same conditions which are insuperable obstacles to the growth of an institution like the Belgian colony, will, for the present prevent the introduction to any extent of that modification of the same plan which is found in Scotland, where families, in homes more or less widely scattered, are licensed to receive the insane as boarders, the number not to exceed four in each house. In a country like ours, where every artisan can earn from three to four dollars per day; every able-bodied common laborer from one and a half to three dollars; every lad of fifteen from one to one and a half dollars, and every young woman from two to five dollars per week, with board; where in perhaps four-fifths of the families of native laborers it is almost literally true that

“The table groans with costly piles of food,”

and the proportion of carpeted floor is larger than in the royal palaces of the continent of Europe, people are not likely to attempt to gain a livelihood by boarding and clothing insane persons for three and a half dollars each per week—the sum now paid the hospitals for the support of State beneficiaries. Neither is it probable that they will do it for the mere pleasure of the thing; and in Massachusetts the present generation is so far remote from the Pilgrim Fathers that his faith must be large who believes they will do it from a sense of religious duty.

The example in Scotland of boarding out her insane in private families, so often quoted by the advocates of the method is shown to be against the experiment, as during the decade from 1861 to 1871, the number of insane so placed in families has actually diminished more than twenty per cent.,—while the number of the insane and idiotic has increased twenty-three per cent. Meanwhile Scotland has not ceased from multiplying her hospitals, and “the public and custodians of the poor are still strongly in favor of the protection and provisions afforded by asylums;” “the demand for increased asylum accommodation is increasing.”

He rejects the cottage plan, or that of dissemination, on the ground, first, of its original cost, compared with an ordinary hospital. This arises primarily from the fact that it must always be more expensive to provide accommodations for a given number of persons in several separate buildings, than under one roof. Now to the excess of cost must be added the expense of connecting these separate buildings with corridors, as was contemplated in the Worcester plan. Another important feature of this plan, was the enclosure of the farm, or a large part of it, by a high wall, the cost of which is properly placed to the account. The expense of operation is next, and really of more grave import. First, as regards heating. By whatsoever method the numerous dissevered buildings may be warmed, it is obvious that the cost must materially preponderate over that of warming a "close" hospital with accommodations for an equal number of patients.

Secondly; officers and employés. The additional labor caused by the dissemination of patients, in the cottage plan, is equivalent to the services of one or two additional officers, or the destruction of the health and the consequent breaking down of the officers, without such addition. The proportionate increase of employés must be considerably larger. The smaller average number of patients in a hall or ward; the distribution of food, if it be sent from a common kitchen, or the cooking of it, if it be prepared in numerous kitchens; and the traversing of the long corridors and other spaces by the almost constant intercommunication between the buildings; all indicate the absolute necessity of additional performers of the labor. Compact as in the Northampton Hospital, the amount of walking, in attendance upon the calls of the friends of patients and upon general visitors, is enormous. What would it be if our distances were quadrupled, or octupled, or, in regard to some of them, stretched to half a mile? The attendants having the direct care of patients must be more numerous. In the two cottages for females now in operation at the Worcester Hospital, the pay of the attendants is to-day equal to *three dollars, seven cents and six mills*, monthly, for each patient. In the Northampton

Hospital, to-day, the similar attendance, including supervisors, in the women's department, is equal to *ninety-seven cents and four mills*, monthly, per patient,—a difference of two hundred and fifteen per cent. in favor of this Hospital. This single item of excess of cost in the cottages is equal to twenty-three dollars and twenty-two cents annually for each patient; and to five thousand four hundred and ten dollars and twenty-six cents annually, for the number of female patients now in this Hospital. Who is going to foot the bills, enhanced in various ways, and so much enhanced in but one of those ways? Even at the present cost, many town patients are removed from the hospitals, because of the expense, and placed in almshouses or other receptacles where they can be supported for a less amount.

The second objection alluded to above as of paramount importance, is really the graver of the two. It is the difficulty of surveillance by the superior officers, which is a necessary consequence of the independent dwellings and their distances from the offices. Money *can* overcome the pecuniary obstacle; but, with all its potency, it never can entirely remove the evil involved in the diminished facilities for frequent and often unexpected observation of every division of the establishment. To the conscientious superintendent whose heart is in his work, and who feels the magnitude of his responsibility, this defect must ever be an endless source of solicitude and of wearing anxiety. I speak the words of truth and soberness when I assert my belief, not only that no labor should be imposed upon the superintendent of an institution like that which was contemplated at Worcester, other than the simple duty of inspection; but that, how faithfully soever he might perform that duty, the institution would still be more defective, in this respect, than a "close" hospital, with the ordinary attention of the supervising officers. And should the superintendent's duty be thus restricted, his office would soon degenerate, in general estimation, to that of "keeper."

In discussions upon the merits of the different plans under consideration, I have heretofore expressed the opinion that, were the most intelligent of the patients here to be removed to cottages remotely situated upon the premises, they would soon desire to return. This opinion was ventured without, in a single instance, any previous questioning of the patients. But while I have been writing this part of my report, one attempt at an investigation of the truth of the basis of the opinion has been made. Going to the hall occupied by the most intelligent and quiet females, I found

seven ladies sitting in the "bay." Six of them have received an education called "accomplished." Conversing with them upon other subjects, a suitable opportunity at length offered for the introduction of that now under consideration. Having described a hypothetical cottage erected upon these premises, and stated the whole matter with, as I believe, perfect fairness, I put the question to them, individually, whether they would choose to be removed to that cottage or to remain where they are. Each responded promptly. Five of them said they would choose to remain where they are; one said she would go to the cottage, and one said she "wouldn't choose either,"—which was not an unreasonable reply.

A State hospital of twenty or twenty-five buildings *can* be made, and its farm, as was proposed at Worcester, *can* be surrounded by a wall so high as ordinarily to prevent escape, and when this is accomplished it *can* be conducted with a certain (or uncertain) degree of efficiency. Massachusetts is rich. A State that can walk erect through the Hoosac Tunnel need not stumble over an institution with a score of edifices, a half-mile of corridors, and two miles of very expensive wall. But, for one, I think the people of the Commonwealth may be congratulated that the plan was relinquished at Worcester, and that it is not advisable for them, through their representatives in legislature and boards of trustees, to adopt it in any future establishment of the kind. I very much fear that it would prove a failure.

We have quoted thus fully from the report of Dr. Earle in the belief that we are doing the readers of the JOURNAL a favor in putting before them in admirable form, the refutation of the arguments of those who favor these improved plans of construction, on the ground of superior utility and economy. In closing, the Doctor has presented the condensed statistics of the Institution, in a form most valuable for future use and reference.

RHODE ISLAND. *Report of the Butler Hospital for the Insane :*
1872. Dr. JOHN W. SAWYER.

There were in the Hospital, at date of last report, 114 patients. Admitted since, 123. Total, 237. Discharged recovered, 37. Improved, 35. Unimproved,

15. Died, 16. Total, 103. Remaining under treatment, 134.

The Hospital has now been in operation for twenty-five years, and a brief history of its origin and labors is given. This is gratifying, not only to all interested in the Institution, but to all who rejoice in the alleviation of suffering, and the restoration to health of the afflicted. Seventeen hundred and fifty-six patients have enjoyed the benefits of the Institution. Of these, six hundred and one have been discharged recovered, and four hundred and forty-eight improved, two hundred and thirty unimproved, and three hundred and forty-three have died.

CONNECTICUT. *Forty-Ninth Annual Report of the Retreat for the Insane: 1873.* JAMES H. DENNEY, M. D.

This report comprises the last three years, from 1870. There were in the Asylum, at that time, 134 patients. Admitted since, 372. Total, 506. Discharged recovered, 147. Improved, 113. Unimproved, 43. Died, 55. Total, 358. Remaining under treatment, 148.

The report contains an account of the semi-centennial anniversary exercises, held in January last, which were of a highly pleasing and interesting character. The address of Dr. Russell embodied the history of the Institution from its inception to the present time. The Retreat is among the oldest institutions devoted strictly to the care of the insane, in the country, and the story of its life, shows the progress made in the treatment of the insane. It was on this occasion that Dr. John S. Butler, who has been for the past thirty years the Superintendent, severed his official relations to the Institution, and the present Superintendent, Dr. Denney, assumed the charge. The plate of the buildings as remodeled and the description of them in the appendix, manifests the spirit of improvement which actuates its managers.

CONNECTICUT. *Seventh Annual Report of the General Hospital for the Insane*: 1873. Dr. A. MARVIN SHEW.

There were in the Hospital, at date of last report, 262 patients. Admitted since, 74. Total, 336. Discharged recovered, 11. Improved, 13. Unimproved, 20. Died, 21. Total, 65. Remaining under treatment, 271.

NEW YORK. *Sixth Annual Report of the Hudson River State Hospital*: 1872. Dr. J. M. CLEVELAND.

There were in the Hospital, at date of last report, 7 patients. Admitted since, 212. Total, 219. Discharged recovered, 45. Improved, 11. Unimproved, 12. Not insane, 1. Died, 24. Total, 93. Remaining under treatment, 126.

During the year, eleven epileptics and eight paralytics were received: all but one upon the order of County Judges. The Doctor justly deprecates the admission of this class among the recent and acute cases, and recommends the erection of institutions for their care and treatment. The Board of State Charities in Ohio have already taken the initiative in the matter. The erection of county insane asylums, or the perpetuation of this system is discouraged. The plan of separating the acute and chronic insane is pronounced a failure and "condemned by reason, in advance."

NEW YORK. *Fourth Annual Report of the Willard Asylum for the Insane*: 1872. Dr. JOHN B. CHAPIN.

There were in the Asylum, at date of last report, 527 patients. Admitted since, 210. Total, 737. Discharged recovered, 7. Improved, 8. Unimproved, 7. Died, 43. Total, 65. Remaining under treatment, 672.

The report of Dr. Chapin is largely taken up with a history of asylum provision for the insane, and of the steps which resulted in the establishment of the Willard Asylum. As the Doctor presents nothing new,

and the whole matter has been fully presented and discussed in the columns of the JOURNAL and the reports of the State Asylum at Utica, it is not necessary to make any further reference to the subject.

NEW YORK. *Report of the Bloomingdale Asylum:* 1872. Dr. D. TILDEN BROWN.

There were in the Asylum, at date of last report, 175 patients. Admitted since, 124. Total, 299. Discharged recovered, 46. Improved, 37. Unimproved, 25. Died, 21. Total, 129. Remaining under treatment, 170.

Dr. Brown reports the death of Dr. Edward S. Porter, who had been an Assistant Physician since 1867. He speaks in terms of high commendation of his ability as a physician, and of his many good qualities as a man, all of which endeared him to his associates and to those who had been under his charge as patients.

"During the past year the Institution has been the subject of unusual public discussion and of newspaper criticism by reason of law proceedings, arising under writs of habeas corpus, and also from willful misrepresentation by an unrecovered patient conjointly with a discharged attendant." This was still further increased by the sensational story of a reporter, who, by simulating insanity, spent several days in the Asylum as a patient.

Following this, a Commission was appointed by Gov. Hoffman, for the purpose of investigating charges of abuse in the Asylum, whose report was published in the April number of the JOURNAL.

NEW JERSEY. *Report of the New Jersey State Lunatic Asylum:* 1872. Dr. H. A. BUTTOLPH.

There were in the Asylum, at date of last report, 700 patients. Admitted since, 229. Total, 929. Dis-

charged recovered, 87. Improved, 88. Unimproved, 3. Escaped, 1. Died, 50. Total, 229. Remaining under treatment, 700.

This is the twenty-fifth year since the Asylum has been opened for patients. Four thousand two hundred and seventy cases have been treated during this period. Of this number twenty-seven hundred and eight have been discharged recovered. The whole cost to the State in appropriations from the Treasury has been \$380,-100. This, in itself, shows the economy and general good management of the affairs of the Institution, and reflects great credit upon the Superintendent, Dr. Buttolph.

We have received no report of the progress of the new Asylum at Morristown, but from the annual message of Gov. Parker we ascertain that the site has been chosen, and the State has purchased about four hundred acres of land. A plan has been adopted of an institution for 600 patients. The entire length of the building is 1,243 feet. The exterior walls will be of granite, quarried on the premises, and the interior walls of brick made from clay, obtained in excavating for the buildings. Water will be obtained from springs which rise on the grounds, and which, even in a dry season, are capable of furnishing over two hundred thousand gallons per day.

PENNSYLVANIA. *Report of the Pennsylvania Hospital for the Insane*: 1872. Dr. THOMAS S. KIRKBRIDE.

There were in the Hospital, at date of last report, 372 patients. Admitted since, 325. Total, 697. Discharged recovered, 127. Improved, 93. Unimproved, 32. Died, 49. Total, 302. Remaining under treatment, 395.

Besides the ordinary record of the additions and im-

provements made, and the acknowledgments to the friends of the Institution for their generous remembrance and aid, the Doctor has treated at some length of "The Crowding of Hospitals for the Insane," and of "Popular Errors—Their Source and Remedy." He gives in full the resolutions passed by the Association of Superintendents at their annual meeting in 1872. There are now three State Asylums, all of which are filled to the extent of their capacity. The new one at Danville, however, is not yet completed. He sanctions the urgent appeal of the State Medical Society, for the early carrying out of the original plan, and for the erection of another for the northwestern counties of the State. To the objection, that they would not approve of the expenditure of so large an amount for such a purpose, he replies that there is no instance on record where the people objected to reasonable appropriations for the object, no matter how large the amount asked for.

As a remedy against the popular errors regarding insanity and asylums, the press is invoked as a most powerful agency "to develop a wise and enlightened public sentiment, that can not but result most favorably to the afflicted."

"This is to be effected by the frequent dissemination of sound views in regard to insanity, and which can only be done by writers who have the knowledge and inclination to investigate this whole subject, and who would especially avoid everything tending to foster prejudices and lead to unsound conclusions. Hardly less potential is the influence of men of high character whose statements are trusted by the community. All such in their intercourse with their fellow citizens, can do much to the same end by the habit of correcting error wherever it may be met, and enforcing correct principles on all proper occasions."

With the study of physiology, as a part of school education, should be added some knowledge of the changes produced by disease, especially in the brain, the organ of the mind.

"They should learn that commonly what are called 'mental affections' are really functional disorders of the brain, and that if these are properly and promptly treated, they are just about as curable as the functional diseases of other organs. They should be taught that insanity is as much sickness as dyspepsia or typhoid fever; that no one with a brain can claim exemption from any form of this disease, and that, unless we willfully do something to bring on attacks of it, it is as reasonable to feel that it is a reproach to have the one as any of the others just named. They should be assured that the usefulness in society of a person really cured of such attack, is in no wise diminished, and that once restored, with proper prudence, entire immunity may be anticipated for the future. So they should learn that experience having shown that a large proportion of these cases could not be treated successfully at their own homes, led to the provision of institutions specially devoted to their treatment; not only for the restoration of the patients, but also for the relief of their families and the protection of the community. They should be shown that these institutions are simply hospitals, just as much as those for the cure of other sick, that they should be known by no other name, that they are attended by physicians and by nurses just like other hospitals, and that they endeavor to collect on their own premises everything that experience has shown to be useful in the management of this disease."

PENNSYLVANIA. *Annual Report of the Western Pennsylvania Hospital*: 1872. Dr. JOSEPH A. REED.

There were in the Hospital, at date of last report, 455 patients. Admitted since, 222. Total, 677. Discharged recovered, 69. Improved, 86. Unimproved, 42. Died, 37. Not insane, 4. Total, 238. Remaining under treatment, 439.

Some relief from the overcrowding which has so long been a serious inconvenience in the general workings of the Hospital, has been obtained by the removal of some of the chronic, quiet cases to the various county asylums of the district. This course was not adopted from choice, as the evils of the plan seemed to be fully appreciated, but as a matter of necessity and as being

the only one which it was possible to pursue, without turning the helpless and dependent at large upon the community. Great encouragement is entertained, that the effort to erect another asylum in that section of the State, will be crowned with success.

Much labor has been spent upon the grounds of the Asylum, and the apprehensions formerly felt that an extensive land-slide might occur, to the damage if not entire destruction of the buildings, has been allayed. Ordinary repairs have been made to the Hospital; the patients have been employed and entertained by a variety of occupations and amusements, and the affairs of the Institution are represented as in a flourishing condition.

WASHINGTON, D. C. *Seventeenth Annual Report of the Government Hospital for the Insane*: 1872. DR. CHARLES H. NICHOLS.

There were in the Hospital, at date of last report, 508 patients. Admitted since, 185. Total, 693. Discharged recovered, 51. Improved, 37. Died, 44. Total, 132. Remaining under treatment, 561.

In addition to the usual amount of statistical matter, and the record of improvements and repairs, the Doctor repeats his recommendation, made in a former report, relative to the erection of an asylum for inebriates in the district. "The failure to pass the act a year ago, was due chiefly to a lack of time to mature a novel legislative measure, in the midst of an extraordinary pressure of business of unusual moment."

VIRGINIA. *Report of the Eastern Lunatic Asylum*: 1872. DR. D. R. BROWER.

There were in the Hospital, at date of last report, 211 patients. Admitted since, 77. Total, 288. Discharged recovered, 18. Improved, 1. Died, 20. Total 39. Remaining under treatment, 249.

Dr. Brower gives an interesting report of the improvements made during the past year.

The central building, erected in 1772, has been remodeled. This constitutes the only alteration of any consequence which has been made during the century of its existence. The two new buildings, which were under contract at time of issue of the report, are completed and fitted up with all the modern fixtures. A new chapel and new kitchen have been erected and properly furnished. Repairs have been carried on, which make the Asylum more comfortable and pleasant, and to compare favorably with the institutions of more recent construction. Dr. Brower seems fully interested in his work, and his administration is marked by efficiency and economy.

WEST VIRGINIA. *Annual Report of the West Virginia Hospital for the Insane*: 1872. Dr. T. B. CAMDEN.

There were in the Hospital, at date of last report, 241 patients. Admitted since, 86. Total, 327. Discharged recovered, 11. Improved, 6. Unimproved, 1. On bond, 1. Died, 22. Total, 41. Remaining under treatment, 286.

Progress has been made in the construction of the building. The center structure has been completed, and materials prepared for a new section of the Hospital proper, which will be erected the coming year.

The Institution is already crowded, mostly with chronic cases, many of whom were removed from the other institutions of the State of Virginia. This is an unfortunate condition, as it will cripple the power of the Hospital as a curative institution, and prevent the State from realizing the greatest good from their beneficent charity.

MISSISSIPPI. *Report of the Mississippi State Lunatic Asylum:*
1872. Dr. W. M. COMPTON.

There were in the Asylum, at date of last report, 166 patients. Admitted since, 121. Total, 287. Discharged recovered, 25. Improved, 1. Unimproved, 4. Died, 12. Eloped, 2. Sent to Vicksburg, 12. Total, 56. Remaining under treatment, 231.

The elopement of a patient of the criminal class gives occasion for comment upon the law at present in force in the State, regarding insane criminals. The statute provides that

“When any person shall be indicted for murder, manslaughter, or assault with intent to kill, and it shall appear in the course of the trial that the said person was probably insane at the time of perpetrating the act, the proceedings against him shall cease on the indictment, until the question of his insanity shall be determined. If the Court, after an investigation of the matter, shall sustain the plea of insanity, and if the Judge shall be satisfied from the evidence that he is guilty as charged, if sane, then the prisoner shall be committed to the State Lunatic Asylum for a period of ‘*not less than ten years*,’ and be constantly ‘kept under the restrictions common to dangerous insanity;’ and further, that when so confined, the writ of *habeas corpus* shall not apply to him.”

The intention of the law undoubtedly was, to prevent the plea of insanity from being urged in extenuation for crime, but the effect has been to make the Asylum a punitive institution, and to place the State in the anomalous position of inflicting punishment upon those who have not been convicted of crime. The patient who eloped, during a residence of eighteen months in the Institution, gave no manifestation of insanity.

Two new wings have been added to the building, and the accommodations correspondingly enlarged.

Dr. Compton again urges the propriety of establishing an inebriate asylum in the State. The further needs of the Asylum for proper means of lighting and ex-

tinguishing fires, and for funds for repairs and improvements are fully set forth in the report.

OHIO. *Thirteenth Annual Report of the Longview Asylum:*
1872. Dr. J. T. WEBB.

There were in the Asylum, at date of last report, 572 patients. Admitted since, 246. Total, 818. Discharged recovered, 128. Improved, 33. Unimproved, 14. Eloped, 1. Not insane, 4. Died, 58. Total, 238. Remaining under treatment, 517.

The Institution can accommodate without crowding, 400 patients. The average number present has been 585. And the highest number at any one time, 603. We hope this condition will be of temporary duration, as some relief will be gained upon the re-opening of the other State asylums, now being rebuilt. Dr. Webb urges the appointment of a special pathologist to the medical staff of the Asylum. We quote :

It is not alone requisite that we may be able to report our duty performed to the living, but an equally important one demands that whatever facts we may draw from the dead, of benefit to the living, be noted. We have long felt the necessity of such an addition to our staff. The demands of science on an institution of this kind are of such a nature, that without the assistance of a competent Pathologist, it is impossible to meet them. A post mortem, without the use of a microscope and various other appliances, is of but little value, and the intelligible use of the same requires constant and laborious practice. So many and varied are the duties of a Pathologist, it is of itself a specialty, and he that imagines the possibility of combining all branches of our calling in one person, demonstrates his ignorance of the status of the profession. My friend, Dr. Gray, of the New York State Lunatic Asylum, at Utica, made a similar request of the Legislature of his State, which was promptly complied with. I would suggest to your board that such inducements be offered, in the way of compensation, etc., as would induce those of large experience in this special department to seek the position. "Whatever is worth doing at all is worth doing well." The additional expense incurred, in adopting these suggestions, would be utterly insignificant in comparison to the benefits derived therefrom.

The use of restraint, in its present modified form, of camisole and muff, wristlets and covered bed is sustained by arguments and comparisons, which make manifest its advantages over seclusion and the hands of attendants, as recommended and used, especially in foreign institutions.

The establishment of an asylum for inebriates is specially commended, on the ground of the injustice to the Institution, to the insane patients, and to the inebriates themselves, when such cases are committed to insane asylums.

OHIO. *Eighteenth Annual Report of the Southern Ohio Lunatic Asylum*: 1872. Dr. S. J. F. MILLER.

There were in the Asylum, at date of last report, 552 patients. Admitted since, 403. Total, 955. Discharged recovered, 168. Improved, 25. Unimproved, 82. Died, 44. Total, 319. Remaining under treatment, 636.

Dr. Miller assumed charge of the Asylum on the first of August last, and during his short term of service has labored under great disadvantages and increased responsibility. The Institution was overcrowded with patients received from the Central Ohio Asylum, and in September following, the number was further augmented by the reception of 100 patients from the Northern Asylum, then burned.

Some idea of the great inconveniences experienced can be gained from the fact that the Asylum erected to accommodate 450 patients, now contains 636. Notwithstanding these untoward circumstances the success of the Institution, and the conduct of its affairs have been satisfactory to its trustees, and reflect credit upon all the officers.

Dr. Miller calls attention to the entirely inadequate

means, at present existing, for extinguishing fires in case of danger from that source. It would seem that the State of Ohio has already a sufficiently disastrous experience to lead to the adoption of means which would secure to all their institutions an unfailing and inexhaustible supply of water, with which to meet and overcome danger from fire.

The small pay which the State gives its medical officers in charge of its charities is a fit subject of comment. The State is the loser by a policy, which refuses a return commensurate with the duties performed, and responsibilities incurred, and which leads to changes, by which other States gain the benefit derived from experience in the specialty and the management of institutions.

OHIO. *Thirty-fourth Annual Report of the Central Ohio Lunatic Asylum*: 1872. Dr. WILLIAM L. PECK, Superintendent of Construction.

The managers report the progress made in the erection of the new building, with the contracts, estimates, &c. The work on the north wings and assembly-hall buildings has reached the level of the second floor. The south wing has not been equally advanced, and some portions of it remain as at time of last report. An appropriation of \$200,000 is asked for. There remains \$160,000 unexpended of the former appropriation. To complete the center rear wing, \$10,000 is also required. Should the work be carried forward as rapidly as now anticipated, the steam heating and water supply will be demanded next fall. No intimation is given of the probable time of occupancy of the new buildings.

OHIO. *Eighteenth Annual Report of the Northern Ohio Lunatic Asylum*: 1872. Dr. J. M. LEWIS.

There were in the Asylum, at date of last report, 319 patients. Admitted since, 317. Total, 636. Discharged recovered, 87. Improved, 131. Unimproved, 207. Died, 33. Total, 458. Remaining under treatment, 178.

The greater portion of the Asylum buildings was destroyed by fire, on the 25th of September last, the particulars of which were given in the JOURNAL for October, 1872. The new wings which were erected the previous year were comparatively uninjured, and were speedily fitted up to accommodate a number of patients. The plans for re-erecting the buildings thus destroyed have been prepared, and the trustees entertain no doubt that the Legislature will authorize their immediate construction. From the report of the trustees it would seem that suitable provision had been made to provide against such a calamity. We quote from their report:

At this point it is proper to say, emphatically, that the liability to such a calamity as that which befell the Asylum had neither been overlooked nor disregarded, and it was fully believed by the undersigned that the establishment was well prepared for such an exigency.

1st. The Asylum was provided with two powerful forcing pumps, located in the pump house at the creek. The purpose of having two was that in case of accident to one, the establishment could depend upon the other.

2d. Steam was always either ready to run the pumps or could be raised in a few minutes; and when this fire occurred steam was ready and the pumps were in perfect order.

3d. There were placed at suitable points outside the buildings seven complete and perfect hydrants, such as are in use in Cleveland, properly provided with conveniences for attaching hose, and these hydrants were connected with the pumps by adequate iron water pipe.

4th. The Asylum had, as we believed, a sufficient supply of hose of good quality, and at all times ready for use.

5th. Inside the buildings there were perpendicular water pipes, independent of the ordinary distributing pipes, and to each of these in every story was attached a coil of hose ready for putting out any local fire which might occur.

6th. In the tower upon the main central building there were four wrought iron water tanks, having a combined capacity of eight thousand gallons. These tanks were placed at the point above indicated many years ago, and served to distribute water to the original buildings of the Asylum. They had answered a good purpose, but as the event proved, were not securely supported, although this fact was unknown to the undersigned.

7th. In the rear of the entire series of buildings, at a central point, there was built two years ago a water tower high enough for the purpose for which it was built, viz.: the distribution of water to all parts of the buildings, for the use of patients and employés. The tank at the top of this tower was connected by proper pipe with the steam pumps, and contained at the time of the fire thirty thousand gallons of water. Neither the tanks in the tower of the main building, nor that in the water tower just described, were intended to be of more than auxiliary service in case of fire. Their contents could, indeed, be used in extinguishing small interior fires, but our main reliance was upon powerful steam forcing pumps, and these were capable of throwing water above the highest point of the buildings, and had in fact often done so; for Mr. Reed had not neglected preparation for the hour of need, but his practice had been to bring out his hose occasionally and to exercise his subordinates in its use.

But there were two weak points in our defenses against fire. 1st. As already intimated, the tanks in the tower over the central building were inadequately supported. 2d. The valve which was used to close the pipe leading from the water reservoir to the tanks first mentioned was placed inside the basement of the main building, and directly beneath the tower in which the old tanks were placed. When the water tower was built a line of pipe was branched off the original pipe at some distance from the buildings, and carried under the west wing adjoining the administration building, and thence to the water tower. The mistake made was in not placing both valves outside the buildings, at such points that they could be reached and worked under any circumstances, for these valves were depended upon to turn the stream of water

into the outside hydrants. The main object of placing the valves under the building, we have been told, was to avoid the frost of winter; but a secondary consideration was economy, induced by the limited means then at command.

ILLINOIS. *Thirteenth Biennial Report of the Illinois State Hospital for the Insane: 1871-2.* Dr. HENRY F. CARRIEL.

There were in the Hospital, at date of last report, 452 patients. Admitted during biennial period, 637. Total, 1,089. Discharged recovered, 216. Improved, 235. Unimproved, 72. Eloped, 10. Died, 97. Remaining under treatment, 459.

The report represents the Hospital as being in a highly satisfactory condition, both as regards its finances and general management.

The treasurer's report shows the payment of every bill against the Institution and a balance in the treasury, "an event which has not occurred in many years." The Board of Trustees have expressed their appreciation of the Superintendent, Dr. Carriel, in the following resolution copied from their records:

Resolved, That the Board of Trustees of the Illinois State Hospital for the Insane, desire hereby to formally express their eminent appreciation of the faithfulness, efficiency and success which has characterized the administration of the affairs of this Institution, by Superintendent Henry F. Carriel, and especially to commend the practical, ingenious and economical manner in which the various items of revenue have been applied to their designed uses, resulting in added improvements, and the restoration of all unused resources, and the placing of the Institution in a condition of completeness and usefulness never before surpassed.

From the statistical tables we learn that 71 per cent. of the admissions of cases of less than three months' standing recovered; 45 per cent. of those between three and six months; 27 per cent. of those between six and twelve months; and only 7 per cent. of those who had been insane for a year or more. A proposition for

dividing the State into larger districts, in reference to population and nearness to the existing asylums, is subjected, and a detailed account of the expenditures made in improvements and repairs is given.

ILLINOIS. *Biennial Report of the Northern Insane Hospital*, (Elgin,) 1872. Dr. E. A. KILBOURNE.

Number of patients admitted since the day of opening, April 3, 1872, 219. Discharged recovered, 7. Improved, 9. Unimproved, 10. Died, 10. Total, 36. Remaining under treatment, 183.

One wing of the Institution capable of accommodating 150 patients has been completed at a cost of \$129,000; for reservoir and pipes for water supply, \$2,246.26; real estate, 323 acres, \$32,339.00. Total cost, \$163,585.26.

The first difficulty experienced was the failure of the water supply. The spring supposed to be capable of furnishing from 50,000 to 80,000 gallons per day was so much affected by the drouth, that it barely supplied the amount necessary for the boilers, and immediately after the opening of the Asylum, two teams were required to draw water from the river for general use of the house. This defect was remedied by laying a pipe and forcing the water from the Fox River, which passes within 800 yards of the buildings. The completion of the Asylum by the erection of the center building, and the other wing, is urgently required, both on the ground of economy in administration, and duty to the insane, still unprovided for. The State of Illinois is now divided into three districts. The new Asylum at Elgin is to receive the patients from the northern section; the one at Anna, from the southern; and the State Hospital at Jacksonville, from the central portion of the State.

TENNESSEE. *Report of the Tennessee Hospital for the Insane:*
1872. Dr. JOHN H. CALLENDER.

There were in the Hospital, at date of last report, 352 patients. Admitted since, 151. Total, 503. Discharged recovered, 68. Improved, 23. Unimproved, 3. Elopéd, 5. Died, 32. Total, 131. Remaining under treatment, 372.

The subject of increased accommodations for the insane of the State, and the evils resulting from overcrowding in institutions, are spoken of. The necessity of multiplied means for employment and recreation, especially for the men, induces the recommendation of additional buildings for workshops. The admission under existing statutes, of three convicts, is the reason for a request for legislation, changing the law upon the subject. A better water supply is imperatively demanded, as the present source left the Institution for seven months, with barely sufficient for laundry purposes, and was wholly inadequate and unfit for the other uses of the Hospital. On the sixth of December, 1872, the laundry building was completely destroyed by fire. This involved also the destruction of the boiler, engine, washing machines, wringer, mangle and steam pumps, and much other machinery connected therewith.

MICHIGAN. *Biennial Report of the Michigan Asylum for the Insane:* 1871-2. Dr. E. H. VAN DEUSEN.

There were in the Asylum, at date of last report, 305 patients. Admitted during biennial period, 155. Total, 460. Discharged recovered, 56. Improved, 32. Unimproved, 40. Died, 27. Total, 155. Remaining under treatment, 305.

The Trustees have given a very full report of the building operations, which have been conducted during

the year. As we have already informed our readers, the plan of extension adopted, contemplated the erection of a new building, contiguous to the original structure. This has been carried out, and accommodations have been furnished for 130 patients. Dr. Van Deusen's report is purely medical, and relates to the character of disease in those admitted, the medical treatment adopted, the requirements demanded in attendants, and the law relative to the admission of patients. Regarding the use of the bromides and oxygen gas, we quote:

“Since their introduction, a few years since, the bromides of potassium and ammonium have been quite generally used in epilepsy and maniacal excitement accompanying cerebral hyperæmia or dependent upon reflex irritation. It may not, however, be inappropriate to refer to some of the symptoms which may result from a prolonged administration of these remedies. Those patients who have taken the bromides continuously for several weeks or months soon begin to exhibit a marked degree of mental hebetude or torpor. Associated with this is a feeling of lassitude and muscular weakness. A slight exertion produces unusual fatigue, and all movements are executed feebly, and without energy. Subsequently a marked loss of flesh and deterioration of the quality of the blood are apparent. Finally, nerve-nutrition is interfered with; wasting of the muscular system is noticeable, and a condition of *anæsthesia* or paralysis is developed. Prior to this unfortunate result, the bromization of the individual is generally shown by the presence of a cutaneous eruption, a fetid breath, and irritation of the fauces. In the experience of the Institution it has never been deemed advisable, in cases of ordinary maniacal excitement, to pursue the administration of these remedies until the nutrition of the body became thus impaired. As soon as symptoms of lassitude, bodily emaciation, and sluggishness of the mental faculties are apparent, their use is discontinued. In epilepsy, however, it is frequently desirable to continue the administration for prolonged periods to prevent the recurrence of epileptic paroxysms. In these cases the bromides are given in connection with tonics and blood restoratives, and a nutritious diet of easily assimilated articles of food.

“During the past year pure oxygen gas has been administered

in two cases with most gratifying results. Our attention was first specially directed to its use by Dr. Conner, of Detroit, in an interview with Dr. Emerson, who has charge of the male department of the Institution. It may be stated, that in neither of the cases referred to was it administered with a view to curative action, but simply to relieve suffering.

"The first case was that of a female in the last stages of pulmonary tuberculosis. She was emaciated, had no appetite, and suffered so much distress in respiration as to be almost wholly deprived of sleep. At the time the gas was first administered death was hourly expected; still its effect was immediate and very satisfactory. The previous lividity of countenance gave place to a warm flush, her pulse became stronger, and she soon dropped off into a more natural and refreshing sleep than she had enjoyed for weeks. Subsequent inhalations were followed by equally gratifying results. The feeling of impending suffocation which had caused her so much distress, was each time promptly relieved, and a quiet and refreshing sleep of usually an hour's duration was induced. Indeed, so great was the relief afforded, that she would ask for the inhaler whenever dyspnœa occurred. Her appetite returned, and not only was life prolonged, but her last days were rendered comparatively free from suffering.

In the second case, that of a young man also in an advanced stage of pulmonary consumption, relief as speedy and complete followed the administration of the gas, at intervals of from one-half an hour to two hours, or whenever dyspnœa became oppressive. Life in this instance was unquestionably prolonged. In both cases, the prompt and efficient relief afforded by the administration of the oxygen was so gratifying that it has been deemed well to present this brief notice of its use."

From the remarks of the Doctor in reference to attendants, we present the following extracts:

"Of all the means used in the Institution for the comfort and restoration of the inmates, the most important, perhaps, is *personal attendance*. It alone is applicable to each individual case, and is available by night as well as by day. Upon its character and efficiency, and more than all else, upon its *spirit*, the success of treatment, in many cases, largely depends. With the most complete architectural arrangements, unlimited resources, and skillful medical care, discouraging failure may often attend when remedial effort is applied through harsh, ill-mannered, and ill-tempered attendants.

The spirit in which a request for even a drink of water or the adjustment of a pillow is met, may give to a feeble, depressed patient quiet, health-restoring sleep, or on the other hand a night of restless irritability.

“The selection and instruction of attendants, as will be readily perceived, is an important and responsible duty. Equally important, and requiring even more skill, tact, and discrimination, is the task of giving form and direction to their efforts, and of aiding and sustaining them by suggestion, encouragement, and sympathy. Habitual thoughtlessness, from defective home training and false ideas of life, duty and social position, are the chief obstacles to the immediate success of many. The larger proportion of those selected as attendants enter upon their duties with the intention of doing right; and in view of the often laborious, anxious, and harrassing character of their duties, fully as many succeed as could reasonably be expected.

“As a rule (to which there are many gratifying exceptions,) individuals from eighteen to twenty-two are by far the best attendants, for the reason that they are less irritable when over-taxed, are more buoyant in feeling, and accommodate themselves more readily to the varied and constantly varying peculiarities of those under their care. Comparatively few do wrong, or are guilty of neglect willfully or intentionally. Most of the reasons causing discharge are the indiscretions and infringement of rule incident to inexperienced youth and faulty education. A really bad man, or, perhaps, one of intemperate habits, is occasionally engaged, despite all the care used—an unavoidable occurrence where large numbers are employed. At this Institution most of the attendants are the sons and daughters of farmers, many of them having previously served as teachers.

“In the engagement of attendants, it is desirable to secure them for a term of service somewhat protracted, in order that the Institution may profit by the experience derived from long familiarity with the duties. For the mutual advantage of the Asylum and the individual employed, a scheme for the payment of wages has been devised, whereby a definite salary has been affixed to each position, proportionate to its responsibility, and payable in full at the conclusion of each year's faithful service. This tends to render sure and adequate the reward of a capable, efficient attendant, and the discrimination between the latter and one of opposite qualities more equitable. The system has been in practical operation for three years, and has thus far proved satisfactory in its work-

ings. It was hoped in this manner to secure to the service higher character and efficiency, and to the attendant the ample compensation, fidelity and zeal in such a position so richly merits. It is true that the salary of a good attendant is greater than usually received elsewhere; but it is none the less certain that almost any sum required to secure perfect personal attendance will bring to the Institution large returns. We hope, eventually, also, to make the salaries of female and male attendants more nearly equal. While the duties of the former are always more onerous than those of the latter, there is a distinction in salary which is not strictly just.

“Notwithstanding the tales of cruelty and abuse on the part of attendants in asylums, which from time to time gain popular credence, it may be safely asserted that the care and attention bestowed in a properly organized institution, is in all respects superior to that received by the insane as a class elsewhere. The devices for the restraint and punishment of many presented for admission certainly surpass in reality those depicted by sensational writers, and can not be found in any of our institutions. Intentional cruelty is not charged; the bruises, excoriations, and fractures found upon their persons; the fetters crowding into the flesh; the firmly rusted irons, and the ridges left by the policeman’s club, give evidence rather of thoughtless ignorance, or that strange fear with which the insane are still regarded.

WISCONSIN. *Thirteenth Annual Report of the Wisconsin State Hospital for the Insane*: 1872. Dr. A. S. McDILL.

There were in the Hospital, at date of last report, 355 patients. Admitted since, 148. Total, 512. Discharged recovered, 60. Improved, 26. Unimproved, 37. Died, 25. Total, 148. Remaining under treatment, 373.

The necessity of increasing the accommodations by enlarging the Institution, and thus perfecting the original plan is presented. This is enforced by the fact that a large number of applications have been refused; and also by the occurrence of an epidemic of erysipelas, the direct result of the present overcrowding. A number of patients have already been transferred to the

County Houses, and that course has been entered upon, which in our own and other States, has been the source of great injustice, and too often suffering. We hope that the opening of the new Asylum at Oshkosh, will render unnecessary further transfers from the State Institutions. Account is given of a fire which resulted in the destruction of the engine house and laundry, with all its machinery. The loss to the Institution has already been made up, in the erection of a new building, with increased accommodations and appliances. Much has been done in repainting and repairing the wards, and otherwise adding to the appearance and comfort of the building. In closing his report, Dr. McDill gives notice of terminating his connection with the Asylum.

We regret his loss to the Institution and the specialty, but find gratification in the fact that he is still retained in public service, though in a different and wider sphere. He has been elected to represent the Eighth Congressional District of his State in the Forty-Third Congress. We join with the Trustees in the following language: "Gladly would we have retained him with us, but as he has chosen this new sphere of labor, we can ask nothing better for him than that his labors may be as satisfactory and successful there as they have been here."

MINNESOTA. *Sixth Annual Report of the Minnesota Hospital for the Insane: 1872.* DR. CYRUS K. BARTLETT.

There were in the Hospital, at date of last report, 244 patients. Admitted since, 118. Total, 362. Discharged recovered, 49. Improved, 37. Unimproved, 10. Died, 19. Total, 115. Remaining under treatment, 247.

The work upon the new Hospital building is still

continued. One section and a return wing on each side of the center, are now completed. The central or administration building is urgently needed, and an appropriation asked for its erection. The old temporary structures in the village are still occupied, with great inconvenience and want of economy in management. The applications for admission are, however, so pressing that there is no immediate prospect of being able to discontinue the present divided arrangement. The reports of the treasurer and steward present a favorable condition of affairs.

KANSAS. *Eighth Annual Report of the Insane Asylum for the State of Kansas: 1872.* Dr. C. P. LEE.

There were in the Asylum, at date of last report, 75 patients. Admitted since, 103. Total, 178. Discharged recovered, 48. Improved, 8. Unimproved, 16. Died, 6. Total, 78. Remaining under treatment, 103.

Investigations made during the year by the Superintendent, Dr. Lee, show that there are now in the State, 343 insane persons, of whom 103 are accommodated in the Asylum.

The erection of an addition to the present building, and also of a new asylum in a different part of the State is proposed. Some improvements have been made during the year, and many others of importance in a sanitary view, suggested.

The Board of Trustees has appointed Dr. L. W. Jacobs, Superintendent of the Asylum, from December 1st, 1872.

TEXAS. *Report of the Lunatic Asylum of the State of Texas: 1872.* Dr. G. F. WEISSELBERG.

There were in the Asylum, at date of last report, 95 patients. Admitted since, 50. Total, 145. Dis-

charged recovered, 29. Improved, 13. Unimproved, 4. Died, 3. Total, 49. Remaining under treatment, 96.

The State of Texas furnishes accommodations for 100 of its insane, which is computed to be only 10 per cent. of the whole number. This Institution is now filled with chronic and supposed incurable cases. In this report the Superintendent has presented the arguments, from an economic and humanitarian stand point, which should induce the Legislature to make appropriations, looking to the cure of acute cases as they occur. There are in the Institution several insane criminals. The practice of compelling association between the ordinary insane and the criminal class, receives just reprobation. Some repairs and improvements have been made during the year, and the Institution is not only out of debt but has a small cash balance on hand.

CALIFORNIA. *Branch Asylum, Napa.*

We have received through the kindness of Dr. E. T. Wilkin, a pamphlet containing photographs of the accepted plan of the new Asylum, with explanations, specifications, and estimates by the architects, Messrs. Wright and Sanders, of San Francisco. We give a condensed description of the plan. The style of architecture is the Domestic Gothic, which with its several projections and towers, and the hills and trees in the back ground will present an attractive appearance. The Asylum will face the west, and consists of a center building with wings on each side. There will be twelve wards for each sex, exclusive of infirmaries. One ward is located on the fourth floor of the center building. The whole will furnish accommodations for 500 patients. In detached buildings in the rear of the last wings, connected with covered corridors, infirmaries

are provided for each sex, which are fitted up with every convenience. Special pains have been taken that there shall be no dark room, or borrowed light throughout the building, and also that every room shall be well ventilated. The lighting is to be done by gas, manufactured from gasoline, the works being placed in a detached building. Water tanks containing 20,000 gallons are to be placed in the upper part of the towers, which are of fire proof construction. The arrangements for heating and supplying hot water are to be complete.

ONTARIO. *Report of the London Lunatic Asylum: 1872.* Dr. HENRY LANDOR.

There were remaining in the Asylum, at date of last report, 457 patients. Admitted since, 115. Total, 572. Discharged recovered, 37. Improved, 7. Unimproved, 1. Died, 27. Eloped, 4. Total, 76. Remaining under treatment, 496.

The Doctor's report is occupied to a large extent with suggestions and urgent appeals, for alterations and repairs in the Asylum so recently built. He complains of the bad state of ventilation and of drainage, which unless speedily remedied, it is feared may result injuriously to the general health of patients.

"The whole of the building requires painting with good material, instead of the whiting mixed with oil, with which it was originally daubed. The hard facing of the walls, which was at first not more than a sixteenth of an inch in thickness, has been washed off and they now present a dirty, earth eaten appearance. The boilers are without steam drums, and from the deficient space, the water is liable to be drawn into the pipes, and the boilers unless carefully watched, are in danger of being blown up. Attention is called to the bad condition of the shutters and windows."

These defects in the construction of the building, and in the hygienic arrangements which we have quoted, are a part only of those to which Dr. Landor has called the attention of the Inspector. We do not repeat them in any carping spirit, but as showing the natural results of haste and an undue economy in construction. This is one of a class of institutions proposed to be erected cheaply, and has been pointed out as a model for guidance in the erection of cheap structures for the care of the insane. Such buildings can hardly be called cheap at any cost. Had the London Asylum been constructed with the care and real economy of the older institution at Toronto, its projectors would have done the public far better service. Dr. Landor deserves credit for having thus frankly set forth the facts, that in the future, Government officers may be guided by a spirit of that higher economy that looks to the permanence of such institutions, rather than mere cheapness in original cost.

ONTARIO. *Report of the Asylum for the Insane, Toronto: 1872.*
Dr. JOSEPH WORKMAN.

There were remaining in the Asylum, at date of last report, 597 patients. Admitted since, 148. Discharged recovered, 57. Improved, 17. Unimproved, 4. Died, 38. Eloped, 2. Total, 118. Remaining under treatment, 627.

Dr Workman treats the subject of the provision for inebriates in the Province, as follows :

That some provision for the care and proper treatment of inebriates is badly wanted in this Province, there can be no doubt; but that these unfortunates are fit inmates of a *lunatic* asylum, every one who has had them in charge must regard as an absurdity and a cruelty. Within 24 or 48 hours after entrance, they find themselves mixed up with mental wrecks as diverse from themselves as midnight from noon-day sun-burst. Can such association conduce

to self-respect or good moral resolve? One fact, at least, is certain; their insane companions are not improved by their presence. Dissatisfied themselves, and too often disposed to magnify the causes of dissatisfaction which the discipline of an insane hospital unavoidably presents, their dissatisfaction becomes contagious. One dipsomaniac may upset the comfort and quietude of a whole ward. Assuredly, the physician whose fate it is to minister to their form of mental disease enjoys no sinecure. He may hourly meet, and parry off, the importunities for liberation of those dethroned minds, who are easily diverted from one subject to another, and who, by adroit management, may be parted from in smiles and renovated content; but it is not so with the de-alcoholized inebriate. Many of this class, perhaps the great majority, are persons of superior mental capacity and culture, and the asylum physician who tries to liberate himself from the meshes of their logic and plausibility by any of his stereotyped shifting of position, finds himself awkwardly at fault. They will hold him to their primary point and purpose, and he must escape from the discussion a discomfited, if not sometimes an irritated, combatant, for they understand how to be offensive. Their insane associates see his disadvantage, and some of them do not fail to rejoice in it.

When one approaches the subject of provision for inebriates, its magnitude is almost disheartening. There are more inebriates than lunatics in this Province requiring benevolent protection; and there are more families suffering under consequences of intemperance, than under all the domestic horrors and disquietudes of insanity.

This description of the difficulty of caring for the inebriates is not overdrawn, and will we think, coincide with the experience of those in charge of institutions. He alludes to the great cost of construction of existing Inebriate Asylums, and also of maintenance, and believes they would be of little utility to the great mass of inebriates in the Province.

FOREIGN REPORTS.

Twenty-Second Annual Report of the Wilts County Asylum, Devizes: 1872. DR. JOHN THURNAM.

There were in the Asylum, at date of last report, 456 patients. Admitted since, 102. Total, 558. Discharged recovered, 42. Improved, 8. Unimproved, 2. Died, 33. Total, 85. Remaining under treatment, 473.

Fifteenth Annual Report of the Committee of Visitors, of the Cambridgeshire, Isle of Ely and Borough of Cambridge Pauper Lunatic Asylum: 1872. G. MACKENZIE BACON, M. D.

There were in the Asylum, at date of last report, 261 patients. Admitted since, 78. Total, 339. Discharged recovered, 33. Improved, 5. Unimproved, 2. Died, 27. Total, 67. Remaining under treatment, 272.

Richmond District Lunatic Asylum: 1872. JOSEPH LALOR, M. D.

There were in the Asylum, at date of last report, 993 patients. Admitted since, 335. Total, 1,348. Discharged recovered, 186. Improved, 40. Unimproved, 20. Died, 121. Escaped, 1. Total, 368. Remaining under treatment, 980.

Report of the York Lunatic Asylum: 1872. FREDERICK NEEDHAM, M. D.

There were in the Asylum, at date of last report, 186 patients. Admitted since, 36. Total, 222. Discharged recovered, 23. Improved, 4. Unimproved, 6. Died, 7. Total, 40. Remaining under treatment, 182.

Twenty-Fifth Annual Report of the Somerset County Lunatic Asylum: 1872. C. W. CARTER MADDEN-MEDLICOTT, M. D.

There were in the Asylum, at date of last report, 522 patients. Admitted since, 185. Total, 707. Discharged recovered, 76. Improved, 43. Unimproved, 14. Died, 61. Total, 194. Remaining under treatment, 513.

Seventh Annual Report of the City of London Lunatic Asylum:
1872. OCTAVIUS JEPSON, M. D.

There were in the Asylum, at date of last report, 275 patients. Admitted since, 44. Total, 319. Discharged recovered, 16. Improved, 2. Unimproved, 4. Died, 13. Total, 35. Remaining under treatment, 284.

Fifty-Fourth Annual Report of the Stafford County Lunatic Asylum: 1872. MARK NOBLE BOWER, M. D.

There were in the Asylum, at date of last report, 501 patients. Admitted since, 204. Total, 705. Discharged recovered, 106. Improved, 10. Died, 72. Total, 188. Remaining under treatment, 517.

Eleventh Annual Report of the Cumberland and Westmoreland Lunatic Asylum: 1872. T. S. CLOUSTON, M. D.

There were in the Asylum, at date of last report, 404 patients. Admitted since, 101. Total, 505. Discharged recovered, 50. Improved, 14. Unimproved, 7. Died, 29. Total, 100. Remaining under treatment, 405.

The First Annual Report of the Hereford County and City Lunatic Asylum: 1872. T. ALGERNON CHAPMAN, M. D.

There were in the Asylum, at the beginning of the year, 104 patients. Admitted since, 184. Total, 288. Discharged recovered, 15. Improved, 4. Died, 18. Total, 37. Remaining under treatment, 251.

Second Annual Report of the Cheshire County Asylum: 1873.
P. MAURY DEAS, M. B.

There were in the Asylum, at date of last report, 295 patients. Admitted since, 180. Total, 475. Discharged recovered, 73. Improved, 30. Unimproved, 16. Not insane, 2. Died, 36. Total, 157. Remaining under treatment, 316.

REPORTS OF BOARDS OF STATE CHARITIES, TRANSACTIONS OF SOCIETIES, &c.

Report of the Board of Public Charities of Pennsylvania: 1872.

This is the third annual report presented by the Board to the Legislature, and besides the statistics of the county houses, jails, prisons and reformatories, includes the history and description of one hundred and twenty homes and hospitals. During the year, forms for registration and books of entry of uniform character, have been prepared for all the county establishments. This will greatly lighten the labor of the Board, of all those whose duty it is to make the returns required by law, and also make such uniformity as is desirable for proper condensation and analysis.

The work of the Board has been well and thoroughly performed, and their suggestions to the Legislature are clear and definite, and supported by sound reasoning. In the summary, the principal points they have endeavored to make in relation to the whole subject of crime and prison economy, are given at length. For dealing with crime *preventive* rather than *remedial* measures are to be relied upon.

The *remedial* system, or prison economy proper, should be based upon the fundamental principle of *reformation through punishment*, and not of punishment only as its proper end. The elaboration of these main principles furnishes the details of the plan suggested for the improvement and amelioration of the condition of the criminal classes. The essay upon Crime and Prison Economy, embodies the views *in extenso* of the Board, and will repay attentive perusal.

Fourth Annual Report of the State Board of Health of Massachusetts: January, 1873.

This is a valuable contribution to sanitary science. Special investigations have been made, during the year,

concerning many subjects having a direct influence on the maintenance of public health, and the results are printed in the articles comprising the report.

The article upon "Sewage, the Pollution of Streams, and the Water Supply of Towns," by Prof. Nichols, and Dr. Derby, Secretary of the Board, gives, from personal observation abroad, and from the examination of the best authorities, the results already attained by those who have devoted time and study to this subject. They recommend the adoption of the system of sewerage as it already exists in most of our cities, especially in Worcester, which is considered the best in the State. For the utilization of sewage, "the irrigation system," as practiced at Romford, near London, receives commendation, and with modifications, for differing conditions of soil, climate, &c., is considered applicable for use here. Many important suggestions are made regarding drainage, ventilation of sewers, &c. We are pleased to see that this subject is being so fully discussed, and thoroughly examined.

We can not speak in detail of all the articles of the report, though they are of sufficient interest to claim our attention. Dr. Jarvis contributes a paper on "Infant Mortality;" a most important subject, which is treated with marked ability. "Food of the People," is a popular dissertation on dyspepsia, and by pointing out the defects in the present style of cooking, is well calculated to do good service to the public. The articles on "Adulteration of Food" and of "Milk," and "The Character of Substances used for Flavoring Food and Drinks," show us most vividly the dangers to which our own lives and those of our infant population are constantly exposed, by the avarice and criminal recklessness of dealers in these substances.

Second Annual Report of the State Board of Charities and Reform of the State of Wisconsin: 1872.

This report is arranged under the general heads of Poor Houses, Jails, Milwaukee Charitable Institutions, State Charitable and Correctional Institutions, Statistics, and Miscellaneous.

In regard to the jails, we think the Commissioners have told the whole truth. "The great difficulty is with the system upon which our jails are built and managed." "The whole jail system is a disgrace to the civilization of the nineteenth century, and can not much longer resist the enlightening and refining influences of the age in which we live."

In regard to granting State aid to the various local charities in the city of Milwaukee, a diversity of opinion exists, not only in the Legislature and among the people, but in the Board of Charities. We have presented a majority report favoring them to a limited extent, and a minority one opposed to the plan. This last is based upon the principle that "no private charity should be sustained in whole or in part by forced contribution;" and the example of the State of New York, in refusing the past year all such appropriations, and the forcible language of Gov. Dix, in his message, are quoted in support. The recommendation of the State Board of Charities of Massachusetts is also brought forward as sustaining the principle.

The general management of the State charitable and correctional institutions, is found quite satisfactory, and is highly commended. The report of the State Asylum at Madison we have already noticed. The Northern Wisconsin Hospital for the Insane, located at Oshkosh, is now open, and has received about 150 patients. The center building, and one wing, have been completed, at a cost of about \$360,000, and can accommodate 200

patients. "When the entire building is completed, it will be one of the finest and best appointed buildings of the kind in the country."

During the year an effort has been made to ascertain the number and condition of insane persons in the State. In reply to inquiries made of the clerks of the various towns, 187 insane were reported. Of this number, 113 are comfortably and well cared for, 63 are proper subjects for hospital treatment. Besides these, there are in the poor houses, 75, and in jails, 50, making in all, 188 patients who should be placed in hospitals. With the opening of the new Asylum, judging from these statistics, the State of Wisconsin will furnish accommodations for all the insane needing treatment, in institutions.

Fifth Annual Report of the Board of State Commissioners of Public Charities of the State of New York, for 1871.

The general plan of the report is the same as has been followed in the previous reports of the Board, viz.: State Charities, Local Charities and Incorporated Charities. Of the State Charities, much attention has been given to the condition of the insane. The suggestions of the Board have been limited to those questions which come in the direct field of Legislative action, to the exclusion of those which are of a purely medical character. During the year the Board have instituted measures to secure fuller returns relating to the insane and idiots, both in public and private Institutions, and in the custody of friends. Such progress has been made as to warrant the belief, that during the coming year they will be complete for the whole State, and will furnish a basis for such recommendations regarding future legislative action, as will meet the necessities of these classes.

An extended account is given of the various State Asylums of their peculiar features, their special labors and general conduct. Of the pathological work recently undertaken in the State Asylum, at Utica, the Board comment as follows:

It is extremely difficult if not impossible to explain, in a popular way, the exact and immediate benefits to the curative treatment of insanity which must result from such observations when continued, accumulated and digested into general principles. At the outset we may say that no field of practical medicine has been so little explored, in the true sense of that term, as the nervous system in its dependence upon and immediate connection with the grosser vital organs; and until the introduction and perfection of the microscope, the attempt to trace the more recondite disease in so delicate a tissue as the nervous, was a problem practically insoluble. And yet, without rational proofs of the changes produced by disease in the structure of the nervous system, no form of treatment could have rested upon more than conjecture. The science of pathology having shown that disease has its laws as well as health, the increased success in the treatment of the insane to-day, as compared with the past, points inevitably to a superior knowledge of the causes of primary derangement, the mutual dependence of organs, their chronological bearing upon each other at different epochs of life, and lastly the law of progressive changes and the stages at which it may be met and modified in its operations. All this the science of pathology unfolds.

These investigations include not only post mortems, but preparing specimens of diseased structures for photographing, and thus enabling the medical profession to derive advantages from inspecting fac-similes which are next only to seeing the original structures themselves.

The report of this department shows that, during the past year, a large number of post mortems have been made, and many morbid specimens collected and arranged. Besides which, very extensive inquiries have been commenced in new fields of clinical observation and much statistical information already collected. These observations, it is believed, have never been equaled in this country, and when they shall have been repeated and confirmed, will doubtless contribute much light to the treatment of nervous diseases.

In view of the great importance of the accumulated observations to the medical profession at large, and to the science of psychology in particular, the Board would suggest the expediency of having all morbid specimens photographed and multiplied for general dissemination, annexing to them, also, clinical sketches of each case. In this way, it is believed, that a valuable series of Clinical Annals of Psychology might be accumulated. The above suggestion applies with equal force to all our lunatic and idiot asylums.

After giving a somewhat detailed account of the causes which led to the establishment of the Willard Asylum for the Chronic Insane, and a general discussion of the principles, which should govern the State in the care of this class of its insane, they make the following recommendation :

It is much to be regretted that the subject of disposing of the chronic insane, should have given rise to differences of opinion among professional gentlemen, all of whom seem equally zealous in their desire to benefit this class of unfortunates. Nevertheless, a practical and speedy solution of this problem is not only possible but even within easy reach, and the method of doing it might be this :

First. Let none of the existing or future State Hospitals discharge any of their insane, except on account of recovery or as provided for under chapter 135, section 42, Laws of 1842. This would provide for a certain proportion of the chronic pauper insane in each district asylum and in proximity to their own homes.

Second. Repeal so much of the Willard Asylum act as limits it to the exclusive custody and care of the chronic pauper insane. By bringing it under the general law governing the other State asylums, it could then receive its fair proportion of acute as well as chronic cases.

Third. Apply the principles relating to the cost of maintenance of the chronic pauper insane at the Willard Asylum, to all existing and future hospitals, by adding plain, inexpensive buildings, and approximating the rate of weekly support to that incurred in the county asylums devoted to the same class of patients.

Fourth. It is quite possible, and we believe it to be a most expedient measure, to return a certain proportion of chronic cases to the care of their families. Selecting of course only those who are quiet and harmless, they should be sent home, and their fami-

lies obliged, if not actual paupers, to care for them as in the infirmity of age. In case, however, such families have not the means to support them, then the superintendents of the poor should be authorized to appropriate from the public funds a weekly sum for their support, as in the case of out-door relief to the indigent sick. This would tend to preserve the domestic relation and to promote social responsibility. Experience of this form of domestic relief to the chronic insane has shown that it works well in Scotland, and we deem it worthy of imitation here.

It has also been the custom of the Asylum, at Utica, to transfer this class of quiet and harmless chronic insane to the care of such families as would provide for insane members. This feature was incorporated in the general law organizing the State Asylum, by a clause authorizing the managers "to deliver any such patient to his relatives or friends, who will undertake, with good and approved sureties, for his peaceable behavior, safe custody and comfortable maintenance, without further public charge." Laws, 1842, chapter 135, section 42.)

The error now to be remedied is that of prohibiting, instead of authorizing, public aid to friends who would be willing to take charge of chronic cases of insanity. It is a matter of frequent occurrence that indigent people not only desire to, but do, in fact, assume such responsibility, by securing their more fortunate neighbors as sureties for the faithful discharge of their trust. Such a disposition deserves to be aided as well as encouraged, as a most desirable means for relieving our State Asylums of a class of patients who do not require the special forms of treatment afforded by these Institutions.

A description of the Hudson River State Hospital for the Insane, together with the expenditure thus far incurred in its erection is given. We quote the concluding remarks:

It has evidently been the aim of the Board of Managers of this Institution, to provide in its construction for the introduction of all those improvements which modern science has shown to be necessary, for the most successful care and treatment of the insane. Those measures embrace both sanative as well as curative instrumentalities, the former exhibiting in the internal structure of the asylum great provision in conception, the latter great provision for all the needs of the insane as a special class.

Regarding the dietaries in public institutions, the Board make the following suggestions. These have attracted the attention of other State Boards of Charities, and have been quoted *in extenso* in their reports. We give them here:

It may be said of all our State Institutions, that their dietaries are, in general, good, both as to quantity as well as quality of food. But this by no means implies that they are beyond the possibility of improvement. It is with the hope, therefore, of throwing out suggestions calculated to lead to experiment, rather than from any desire to animadvert captiously upon an old established system, that we venture to offer a few ideas upon this subject. And, inasmuch as it is made the duty of the Board to inquire into the management of all State Institutions, it will be perceived that this subject comes legitimately within the purview of its statutory obligations. The difficulties in the way of arranging any dietary for a public institution, upon a physiological basis, arise from two sources, viz.: first, economy, and second, taste—economy, to meet the criticism of the public mind, and taste, to meet the demands of the inmates. So far as economy is concerned, it is a wise measure in itself, everywhere, but in no field of application is it so likely to go amiss as in that of food. In fact, all investigations into this subject concur in showing that the majority of the laboring population are, as a whole, under-fed. The truth of this observation may be found in the general character of the diseases presented by this class, and the underlying foundation of sufficient food, upon which so many of these diseases rest. Poverty may, possibly, be the first essential cause of limitation in quantity; but ignorance in the selection of food, militating, as it does, against judicious variety, may, in the end, do as much harm as the mere incapacity to procure it in sufficient amount. Then, so far as taste is to be consulted, the duty of those having charge of public institutions is one of elevation, and not of simple acquiescence in the taste of their inmates, which tastes often are opposed to health, and should not, therefore, be indulged.

Let it be remembered, at the outset, that *filling* men is not, necessarily, *feeding* them. The appropriateness of food, as such, depends upon, not quantity alone, but also upon *quality* and *variety*, and there is no escape from the operation of this law, consistent with health. Redundancy of inferior articles of food does not compensate for either absence or paucity of nutritive constitu-

ents. This is the grave error so commonly committed by the laboring population, who, from further ignorance in this respect, apply the term "rich" to food, from metaphorical analogy to the prices asked for such articles, whereas, in fact, many of the most costly substances are, in a nutritive point of view, of inferior value to cheaper ones. The sole physiological basis of value in food rests upon the presence and quantity of some proximate organic element. Wherever this is found, in a form accessible to digestion, the article is nutritious, whatever its price.

The dietaries of our public institutions are evidently intended to meet, in conjunction with economy, the habitual tastes of their inmates. Those inmates are mostly from the laboring population. Can not something be done, through the instrumentality of the institutions in which they are placed, to reform their tastes, by supplying them with a larger range of dietary, and, at the same time, not proportionally enhancing the cost of their support? In the list of articles which we have appended below, will it be said, for example, that farmers will *not* eat oatmeal because horses eat the whole grain? On the same principle they should not eat corn meal. Again, in relation to Graham or unbolted wheat flour, there is an ignorant prejudice against it among the laboring class, who think only the finest and whitest wheat flour edible, when, in fact, the whole agricultural population of continental Europe and all its armies are almost exclusively fed on unbolted flour not only of wheat, but often of other grains, and no one certainly will question the healthy state of these populations.

We think, therefore that the experiment, considering its inexpensive character, is worth trying, in all State institutions, of adding to their already established dietaries some new articles, and thus educating, within the limits of a still present economy, those tastes for variety in food, which tend so largely to maintain health. There can be no doubt, as all physicians know, that the restricted diet of our agricultural population is at the foundation of most of those constitutional degenerations which open the door to consumption, insanity, and a nameless host of diseases, whose seeds, whether inherited or self-produced, find a ready soil for development in all under-fed people.

The persistent use of salted meats, whose most valuable constituents are abstracted by brine in proportion to the length of their immersion, and the omission to use vegetables in sufficient amount and variety, are the fruitful sources of glandular degeneration and diathetic diseases in our laboring population. In relation to vege-

tables, it may be said that, in general, the *starch* group is used to excess, and not sufficiently counter-balanced by the *cruciferous*, *leguminous* and *compositæ* families. The carrot, parsnip, beet, tomato, cauliflower, salsify, lettuce, cresses, leeks, onions, are not as generally used as they should be, when compared with the potato, rice, Indian meal, buckwheat, turnip and cabbage, even the last two being often, in winter, inexcusably absent. And as to the acid fruits, they play but a small part in the general dietary of the laboring classes, although it is every day evident in the cravings for them, exhibited by dyspeptics, that they are among the most useful of substances in the chemistry of digestion. The regulation of food, according to seasonal necessities, is another of those problems not wisely considered in social life, which, if it were, would prevent many of those mis-called bilious disorders.

Without desiring to do more than suggest, as was stated at the outset of these remarks, the possibility of improving our public dietaries, we venture to name a few articles which might be introduced into them. These articles are nutritious, relatively inexpensive and easily obtained. The following list comprises the leading ones:

First. Oatmeal, in the form of stir-about or hasty-pudding, three mornings in the week, from October to April. This is, perhaps, the most nutritious and heat-producing of all the cereals, and, by itself, is quite competent, when taken with milk, to make a sufficient breakfast for a laboring man. Most of the laboring people of Scotland have no other.

Second. Graham flour, made into bread, without sweetening, and served daily at breakfast throughout the year. The presence of the phosphates, in the unbolted wheat flour, constitutes its great value as a nerve-nourisher.

Third. Rye flour, made into bread, and served twice a week from November to April.

Fourth. Fresh fish, once a week at least, the year round.

Fifth. Cheese, three times a week, the year round.

Sixth. Chocolate twice a week, at breakfast or supper, from December to March.

Seventh. Milk, as an article of drink, separate from tea and coffee admixture, at supper daily.

We assume that true coffee and tea are daily given, in all our public institutions, and certainly, so far as the former is concerned, it is one which, physiologically considered, subserves some of the highest purposes in the human economy, being not only a digest-

ive stimulant, but also a tissue saver. Tea corresponds to it in many particulars, but in a far inferior degree. An army might endure a forced march upon a ration of coffee and biscuit alone, but it could not on tea, whatever its quality or strength.

All the above enumerated articles should be used to diminish the quantity of certain substances now consumed in excess, such as molasses, salted meats, pork, fine wheat flour, buckwheat and cornmeal; and in a nutritive point of view they are more than an offset.

Twenty-Sixth Report of the Commission in Lunacy, England.

We are indebted to Dr. Edward Jarvis, for a copy of the English Report, and for copies of the reports of several English asylums.

Transactions of the Wisconsin State Medical Society: 1872.

This volume of transactions, is one of interest and value. The number of subjects treated of, is unusually large; the articles are short and to the point, as the authors have not attempted to cover the whole ground of a given subject, but have been content with giving their views or experience within a limited, and therefore readable space. The profession of the State may congratulate themselves upon their labor, and the manner in which it is presented.

Transactions of the Medical Society of the State of West Virginia: 1872.

This society is one of recent formation, having been organized in 1867. A number of interesting articles are presented in the volume, one of which, is by Dr. Kunst, of the Insane Asylum of Western Virginia, entitled, "A Synopsis of Insanity." The report of cases of Strangulated Inguinal Hernia, reprinted from the *New York Medical Journal*, for Jan., 1873, and bound with the transactions, is interesting especially in the details of the suit for mal-practice, which resulted in the complete vindication of the operating surgeon, Dr. Brock.

Proceedings of the American Association for the cure of Inebriates: October, 1872.

The opening address was by the President, Dr. Parrish of Media, Pa., upon "Intemperance as a Disease." The subject is discussed in great measure, in answer to the objections offered, and to the strictures of the temperance and general press upon the declaration of principles, which have been set forth by the Association. A committee was appointed to correct and further define these principles.

Drs. Dodge and Parrish, who during the past year appeared by request, before a special committee of the English Parliament, as delegates from the Association, made their report. Their examination, in regard to the subject of inebriety, the practical workings of prohibitory and license laws in the different States, the mode of conducting, and the success of Inebriate Asylums, and kindred subjects was at once thorough and exhaustive. The report closes with the recommendations of the English Committee to Parliament.

Several reports from institutions, giving a summary of the operations for the year were made, and several papers read by the members. A draft of an act to establish and to regulate Inebriate Asylums was presented. It provides for the legal commitment and detention of inebriates for the term of one year, and for their employment in such labor as may be adapted to their capacity. Persons so committed can, upon escaping from the Institution, be arrested and returned to its care.

This is a move in the right direction.

Fourth Annual Report of the Board of State Charities and Corrections of Rhode Island: 1872.

BOOK NOTICES.

Ovarian Tumors, their Pathology, Diagnosis, and Treatment, especially by Ovariectomy. By E. RANDOLPH PEASLEE, M. D., Professor of Gynæcology, in the Medical Department of Dartmouth College, Attending Surgeon of the New York State Woman's Hospital, etc., etc.

Diseases of the Ovaries, their Diagnosis and Treatment. By T. SPENCER WELLS, Fellow and Member of the Council of the Royal College of Surgeons of England, etc., etc.

[Both Published by D. APPLETON & Co., 549 and 551 Broadway, New York.]

Surgery has won no grander triumphs than in the special field of Ovariectomy. It is within the memory of the living practitioner, that surgical interference in cases of disease of the Ovaries was first attempted, contrary to the advice and teachings of the most prominent surgeons; but now, after an experience of a few years only, they have proved so amenable to proper surgical treatment, as to justify the operation in nearly all cases. To Dr. E. McDowell, of Kentucky, is awarded the credit of having performed the first operation, and also of bringing it to the notice of the profession. This was in 1809, but the case was not reported till the year 1818. It has, however, been frequently and generally practiced for only fifteen years.

In the two volumes before us, we have presented the experience and knowledge of two representative men in this specialty. Professor Peaslee, of New York, and T. Spencer Wells, of London. It is unnecessary for us to speak of their skill or ability. Their successful labors, and the renown, arising therefrom, are the best introduction of their books to the profession. Professor Peaslee, writing from an experience of twenty-five years, modestly asserts, that though he has given explicit expression to his views upon all practical points, he has also

given his reasons upon which they are founded, that they may be adopted or rejected upon rational grounds. This is the language of true science and scholarly attainment. We are pleased to see that the work of Professor Peaslee has been received, both in this country and abroad, as an authoritative exposition of the subject upon which it treats. We quote from the review in the *Edinburgh Medical Journal*: "This is an excellent work, and does great credit to the industry, ability, science, and learning of Dr. Peaslee. Few works issue from the medical press so complete, so exhaustively learned, so imbued with a practical tone without losing other substantial good qualities." More than this, it is impossible to say.

The volume by T. Spencer Wells, on Diseases of the Ovaries, was written after the completion of 500 operations, by the author. The recoveries number 373, a showing not only highly favorable, but almost marvelous, in view of the gravity of the disease, and of the operation. Much space is devoted to the analysis of these and to the details of the operation. The same ground is covered as in the other volume. With these two works written with such ability and with such a weight of authority, the subject of Ovariectomy would seem to have been brought fully up to the times.

We are not prepared to make a differential estimate of their relative merits, but can recommend them as of the highest practical and scientific value. They are both profusely illustrated, and are given to the profession in the best style of typographical art.

The Passions in their Relations to Health and Diseases. Translated from the French of Dr. X. BOURGOIS, Laureate of the Academy of Paris, &c. By HOWARD F. DAMON, A. M., M. D. Boston: JAMES CAMPBELL, 1873.

The Mineral Springs of the United States and Canada, with Analysis and Notes of the Prominent Spas of Europe, and a List of Sea Side Resorts. By GEORGE E. WALTON, M. D., Lecturer on *Materia Medica* in the Miami Medical College, Cincinnati, &c., &c. New York : D. APPLETON & Co., 1873.

In this volume the author announces that he has endeavored to arrange all the known facts concerning mineral waters, in such a manner that they shall be readily accessible. For this purpose he has consulted the best European authors, their conclusions being drawn from hundreds of years of laborious investigation of the spas of Germany, France, Switzerland and Italy. The portion relating to the Springs in the United States, is the result of a selection of credible evidence regarding them, gained by correspondence and personal observation. There are also chapters upon the classification, chemical constituents, and therapeutics of mineral waters, which add much to the value of the work. It will tend to enlighten physicians and others upon the real qualities and medicinal virtues of the various kinds of water which are so much used for the cure of disease. It is illustrated by maps showing the location of the springs in the country, and has an attractive appearance.

PAMPHLETS AND REPORTS.

Annual Report of the New York State Inebriate Asylum, Binghamton, N. Y.: 1872. Dr. D. G. DODGE.

There were in the Asylum, at date of last report, 85 patients. Admitted since, 249. Total, 334. Discharged with great hope of permanent reformation, 196. Unimproved, 57. Remaining under treatment, 81.

A great portion of the report is taken up with the proof of the assertion that inebriety is a disease, and the opinions of men noted in the profession are largely

quoted in confirmation. Allusion is also made to the extended examination of the whole subject of intemperance, by the Committee of the English Parliament, before whom the Doctor gave testimony, last year. It is of interest as showing the position now held by those who have given themselves to the study of this subject, and the care of inebriates.

Proceedings of the State Convention of Superintendents of the Poor, at a Meeting held at Albany, N. Y., January 29, 1873.

This Convention was called, that united action might be had regarding the abolishing of certain evils, at present existing, relating to the transportation of paupers, at the expense of counties, to other localities, and the adoption of some measures for the detention and employment of able-bodied paupers, and the better care of the sick and infirm. Bills to accomplish these ends were prepared for submission to the Legislature.

Juries and Physicians on Questions of Insanity. R. S. GUERNSEY, Esq., of the New York Bar.

This is the plea of a lawyer against the proposition, which has been made, of having physicians pass upon the question of insanity, when pleaded in extenuation of crime, instead of a common jury as in other cases. As we might suppose, his reasoning being upon technical and legal grounds, his conclusion is adverse to the suggestion. If any change is to be made, "the question of insanity should be taken from a *legally irresponsible jury*, and in *all* cases placed in the hands of a *responsible judiciary* with the same rules as at present."

"*Legal Responsibility in Old Age.*" [Read before the Medico-Legal Society of New York.] By GEORGE M. BEARD, A. M., M. D.

This subject is treated under the three heads of "The Law of the Relation of Age to Work,—The Impair-

ment of Responsibility, by the Decay of the Mental Faculties in Old Age,—How shall the Effects of Age on the Mental Faculties be best brought to the notice of Courts of Justice.” Dr. Beard has already devoted much time to the elucidation of this subject, and has written several articles which touch upon one or more of its divisions. He is thus fitting himself in a peculiarly thorough manner to present an exhaustive treatise upon it at an early day. In fact, he makes this announcement.

It is a comparatively new field of labor, and we doubt not the Doctor will do himself credit and benefit the profession by the work. As it is one having an intimate relation to our specialty, we shall look for it with interest.

We have received several copies of the “*Record*,” a weekly paper published at Binghamton, in the interest of the various institutions for the amelioration and cure of inebriety. As a temperance paper it has a large field for labor, which it seems well adapted to occupy. Many of the articles appeal to the reason rather than the feelings, and will satisfy a class of readers who desire something beside the sensational stories, and the details of a bitter experience, with which in their own lives they are already too familiar.

First Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States. For the Year, 1872.

Rev. Henry Hawkins, Chaplain to the Middlesex County Asylum, has sent us a small parcel of pamphlets, which contains several sermons and addresses, appropriate to the varying conditions of asylum life; one “An Address to the Attendants,” another, “Visiting Day at the Asylum,” “An Address to Convalescents on Leaving the Asylum,” and others of like

character. They show the interest of the Chaplain in the work in which he is engaged, and are calculated to awaken serious thoughts in the minds of those who read them. This is a field of labor in our asylums, which we are glad to see filled by men who appreciate its importance, and the opportunities offered for doing good, and sowing seed which may bring forth fruit abundantly.

Fifty-Second Annual Report of the New York Eye and Ear Infirmary: 1872.

It appears from the statistics that 7,730 patients with disease of the eye, and 2,397 with disease of the ear, have been treated during the year.

The Sensory and Mental Deficiencies of Idiots. By W. W. IRELAND, M. D., Medical Superintendent of the Scottish National Institution for the Education of Imbecile Children. [Read before the Medico-Psychological Association at Edinburgh, November, 1872.]

Abnormal Reaction of the Acoustic Nerve in Chlorosis and Bright's Disease. By WILLIAM B. NEFTTEL, M. D., New York. [Reprinted from *Archives of Scientific and Practical Medicine*, January, 1873.]

A Case of Supposed Disseminated Schlerosis of the Brain and Spinal Cord. By HENRY D. NOYES, M. D., Professor of Ophthalmology in Bellevue Hospital Medical College, &c. [Reprinted from the *Archives of Scientific and Practical Medicine*, January, 1873.]

Notes on a New Form of Percolator, Triplex Pill, Rhubarb, &c. By EDWARD R. SQUIBB, M. D. [Reprinted from Proceedings of the American Pharmaceutical Association, 1872.]

Psychology of Vice and Crime. Valedictory Address to the Graduating Class of the Cincinnati College of Medicine and Surgery. By J. A. THACKER, M. D., Professor of the Principles and Practice of Medicine.

On the Use of the Seton in Chronic Affections of the Womb. By ELY VAN DE WARKER, M. D., Syracuse, N. Y. [Reprinted from the *Journal of Obstetrics*.]

Twenty-Second Annual Report of the New York State Asylum for Idiots: 1872. Dr. H. B. WILBUR.

- Twenty-Ninth Annual Report of the Indiana Institution for Educating the Deaf and Dumb*: 1872.
- Eighth Annual Report of the Illinois Institution for the Education of Feeble-Minded Children*.
- Forty-First Annual Report of the Trustees of the Perkins Institution and Massachusetts Asylum for the Blind*: 1872.
- Fourth Annual Report of the New York State Institution for the Blind*: 1872.
- Twenty-Third Annual Report of Western House of Refuge of the State of New York*.
- Annual Report of the Secretary of the Interior*. Washington, D. C. 1872.
- Report of the Rhode Island Hospital, at their Ninth Annual Meeting*: 1872.
- Second Annual Report of St. Joseph's General Hospital*: Baltimore, 1872.
- Twenty-First Annual Report of the Commissioners of the Alms House*: Newburgh, N. Y. 1872.
- Report of the Brooklyn City Hospital*: 1872.
- Cornell University Register*: 1872-3.
- Annual Report of the Commissioner of Agricultural and Public Works, for the Province of Ontario, for the years 1871 and 1872*.
- Constitution, By-Laws and List of Members of the Medico-Legal Society, of the City of New York*.
- Address to the Graduates of the College of Physicians and Surgeons of Syracuse University*. By R. W. PEASE, M. D., Professor of Clinical Surgery: Feb. 1873.
- Fifty-Fourth Annual Report of the New York Institution, for the Instruction of the Deaf and Dumb*: 1872.
- Defense of Insanity in Criminal Cases*. Argument of HENRY L. CLINTON, before the Judiciary Committee of the Senate: April, 1873.
- Report in the Fifth Decennial revision of the United States Pharmacopœia to the Medical Society of the State of New York*. By EDWARD R. SQUIBB, M. D.
- Rules of the Medico-Psychological Association*.
- Report of the Board of Managers of the Pennsylvania Hospital*: 1873.
- First Annual Report of the Roosevelt Hospital New York*.
- Infant Mortality*. By EDWARD JARVIS, M. D. [From the Fourth Annual Report of the Massachusetts State Board of Health.]

SUMMARY.

NOTICES.

Mr. Lutwidge, the Commissioner in Lunacy, who, while visiting an Asylum near Salisbury, was stabbed in the right temple, by one of the patients, died on the evening of the 28th inst., a few minutes before the arrival, from London, of Sir James Paget. The fatal blow was inflicted with a long nail, and was followed by a paralytic affection from which he never rallied.—*The Lancet*, May 31, 1873.

—We record, with sorrow, the death of David Skae, M. D., F. R. C. S. E., Superintendent of the Royal Edinburgh Asylum, Morningside. He died on the 18th of April, at his residence, Tipperlinn House, after a long illness, occasioned by malignant disease of the œsophagus. He held the position of Superintendent of the Morningside Asylum from 1846 till the time of his death. He has acquired a reputation which is world wide in extent, and has done much to disseminate correct views regarding the subject of insanity—its causes, classification and treatment. He has contributed many articles to medical journals, and we understand was preparing a comprehensive treatise, as the result of his large experience in the science and treatment of insanity. He was a genial and kind-hearted man, and had endeared himself to his many friends, who now lament his loss.

—Thomas S. Clouston, M. D., M. R. C. P. E., formerly Assistant Physician to the Royal Edinburgh Asylum, and late Superintendent of the Cumberland and Westmoreland Asylum, and at present Associate Editor of

the *Journal of Mental Science*, has been appointed to fill the vacancy caused by the death of Dr. Skae.

We have received a copy of the testimonials presented by Dr. Clouston, on applying for the position. They are numerous, signed by the most noted men in the profession and specialty, and indicate a regard for the Doctor, and confidence in his ability, which is most pleasant and flattering. It is superfluous for us to attempt to add anything to what has already been said.

—Dr. Mark Ranney, late Superintendent of the Hospital for the Insane at Mount Pleasant, Iowa, has been appointed Superintendent of the Hospital for the Insane at Madison, Wisconsin, in place of Dr. A. S. McDill, resigned.

—Henry R. Stiles, M. D., of New York, has been appointed Superintendent of the Homœopathic Insane Hospital, at Middletown, Orange county, New York.

—Dr. Edward R. Hun has resigned the position of Special Pathologist in the New York State Asylum, at Utica, and Theodore Deecke, of New York, has been appointed to fill the vacancy thus created.

—John Ordronaux, M. D., LL. D., Professor of Medical Jurisprudence in the Law School of Columbia College, Boston University, &c., has been appointed Commissioner in Lunacy for the State of New York, in accordance with the provision of the accompanying law.

CHAP. 571.

AN ACT further to define the powers and duties of the board of State commissioners of public charities, and to change the name of the board to The State Board of Charities.

PASSED May 21, 1873.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. The commissioners now in office, appointed pursuant to the act entitled “An act to provide for the appointment of

a board of commissioners of public charities and defining their duties and powers," passed May twenty-third, eighteen hundred and sixty-seven, and their successors to be hereafter appointed, shall constitute a board to be called "The State Board of Charities," and such board and commissioners shall have the powers conferred by said law and all amendments thereof, together with such further powers and duties as are hereinafter mentioned; and all provisions of said laws not inconsistent herewith shall apply to said board and to the said commissioners respectively. Such a board shall cause a record to be kept of its proceedings by its secretary or other proper officer. It shall have power to make and use an official seal and alter the same at pleasure, and its proceedings and copies of all papers and documents in its possession or custody may be authenticated in the usual form, under its official seal and the signature of its president and secretary, which may be used as evidence in all courts and places in this State, in like manner as similar certificates by the secretary of State or any other public officer.

§ 2. Such board may, by its orders, from time to time, define the duties of its officers, and regulate the discharge of its functions; and shall, also, provide for the holding of, at least, four meetings during each year, which shall be public. Six members of the board, regularly convened, shall constitute a quorum. The failure, on the part of any commissioner appointed as aforesaid, to attend any three successive public meetings of the board above provided for, during any calendar year, may be treated by the governor as a resignation by such non-attending commissioner, and the vacancy be filled; and the annual reports of said board shall give the names of each commissioner present at each of the said public meetings of the board.

§ 3. One additional member of said board, who shall reside in the county of Kings, and two who shall reside in the county of New York, shall be appointed for the term of eight years, in the same manner as is provided in respect to the present commissioners.

§ 4. The said board or any one or more of said commissioners, are hereby authorized, whenever they may deem it expedient, to visit and inspect any charitable, eleemosynary, correctional or reformatory institution in this State, excepting prisons, whether receiving State aid or maintained by municipalities or otherwise, and, also, to visit and inspect any incorporated or private asylums, institutions, homes or retreats, licensed for the detention, treatment and care of the insane, or persons of unsound mind, as hereinafter provided for.

§ 5. If, in the opinion of said board, or any three members thereof, any matter in regard to the management or affairs of any institution, subject to the visitation of said board, or to any inmate of any such institution, or person in any way connected therewith, requires legal investigation or action of any kind, notice thereof may be given by the board or any three members thereof to the attorney-general; and it shall be his duty thereupon to make inquiry and take such proceedings in the premises as he may deem necessary and proper, and to report his action and the results thereof, to the said board without delay.

§ 6. Said board shall have authority to require from the managers and from the officers in charge of any institution it is authorized to visit, any information which said board may require in the discharge of its duties, and may prepare regulations according to which and provide blanks upon which such information shall be furnished by any such officer and managers in a clear, uniform and prompt manner, for use by such board.

§ 7. The said board shall be authorized to collect (and as far as it may think advantageous to embody in its annual reports) such information, both in this State and elsewhere, as it may deem proper, relating to the best manner of dealing with those who require assistance from the public funds, or who receive aid from private charity; and to make such suggestions, from time to time, as to any legislation or action which may be desirable in regard thereto. The said board may also, from time to time, in its reports to the legislature, present such views in regard to the best method of caring for the pauper and destitute children distributed through the various institutions of this State, or are without the instruction and guidance which the public welfare demands; and also, to furnish in tabulated statements, as nearly as possible, the numbers, sex, age and nativity of those in this State, and in the several counties thereof, which are in any way receiving the aid of public or private organized charity, with any other particulars they may deem proper.

§ 8. The said board shall have power, by a resolution to be entered on its minutes, subject to such terms and regulations as it may prescribe, to designate three or more suitable persons in any county to act as visitors, in said county, of the several poor-houses and other institutions therein, subject to the visitation of the board, in aid of and as representatives of said board, except such institutions as have a board of managers appointed by the State; and all officers and others in charge of such institutions shall admit to said institutions all such persons so designated, upon a production

of a copy of such resolution, certified by the president or secretary of said board, to visit, examine and inspect the grounds and buildings of every institution, and every part thereof, and all its hospital and other arrangements, and to have free access to all its inmates. Any officer, superintendent or person in charge of any such institution, who shall refuse to admit any person so designated, or shall refuse to give said visitors all requisite facilities for the examination and inspection as herein provided for, shall be subject to a penalty of two hundred and fifty dollars for each such refusal, which penalty may be sued for and recovered in the name of the people of the State, by the attorney-general, and the sum so recovered shall be paid into the treasury of this State.

§ 9. No person, association or corporation shall establish or keep an asylum, institution, house or retreat for the care, custody or treatment of the insane, or persons of unsound mind, without first obtaining a license therefor from the said State board of charities, provided that all persons, associations, or corporations who, at the time of the passage of this act, are engaged in keeping such asylums, institutions, houses or retreats, or in keeping insane persons, or persons of unsound mind, for compensation or hire, shall obtain such license within three months thereafter; and provided further, that this section shall not apply to any State asylum or institution, or any asylum or institution established or conducted by any county, or by any city or municipal corporation chartered by the legislature; and provided, also, that it shall not apply to cases where insane persons, or persons of unsound mind, are detained and treated at the houses of their families or relatives.

§ 10. Every application for such license shall be accompanied by a plan of the premises proposed to be occupied, to be drawn on a scale of not less than one-eighth of an inch to a foot, with a description of the situation thereof, and the length, breadth, and height of, and a reference by figure or letter to every room and apartment therein, and a statement of the quantity of land not covered by any building annexed to such house and appropriated to the exclusive use, exercise and recreation of the patients proposed to be received therein, and also a statement of the number of patients proposed to be received into such house, and whether the license so applied for is for the reception of male or female patients, or for both, and if for the reception of both, of the number of each sex proposed to be received into such house, and for the means by which the one sex may be kept distinct and apart from the other. And it shall not be lawful for said board to grant any such license without having first, either collectively or by a com-

mittee thereof, visited the premises proposed to be licensed, and, being satisfied by such examination that they conform to the description of the application, and are otherwise fit and suitable for the purposes for which they are designed to be used.

§ 11. Whenever said State board of charities, upon the application of any person, association or corporation, made as provided by the preceding section of this act, and examination of the building and means employed, or proposed to be employed, to take the care of insane persons, or persons of unsound mind, by such person, association or corporation, shall determine that the same are sufficient and proper for such purpose, the said board is hereby authorized and required to grant such license, and to make such conditions, terms and regulations, in regard thereto, as shall seem meet and proper for the care and protection, health and comfort, and for the inspection and examination of all insane persons, or persons of unsound mind, so lodged, boarded, kept or detained in such asylum or institution, and of insane persons, or persons of unsound mind, in the charge or keeping of such person, association or corporation; which said license shall be filed in the office of the clerk of the county in which such asylum or institution is situated. The said board may revoke the license of any asylum or institution, issued under the provisions of this act, for reasons deemed satisfactory to said board; but such revocation shall be in writing and filed as aforesaid, and the notice thereof given in writing to the person, association or corporation to whom such license was given.

§ 12. After the expiration of three months from the passage of this act, any person or persons who shall conduct or maintain any private insane asylum or institution, and the officers of any corporation who shall conduct or maintain such private asylum or institution without having obtained a license as herein provided, or for more than thirty days after the revocation of such license, or shall receive any patient after notice of such revocation, shall be guilty of a misdemeanor, and it shall be the duty of the district attorney of the proper county to proceed against such offender as may be provided by law.

§ 13. The Governor shall nominate, and by and with the advice and consent of the Senate, appoint an experienced and competent physician, to be called the State Commissioner in Lunacy, who shall hold his office for five years, and receive an annual salary of four thousand dollars, and traveling expenses not to exceed one thousand dollars, to be paid on presentation of vouchers to the comptroller; and who shall ex-officio be a member of the State board of charities, and shall make full report of all his official acts

and visitations to the said board, from time to time, under such regulations as the said board may prescribe. The said board shall furnish such assistance as the said commissioner may, in their opinion, require to aid him in the proper and efficient discharge of the duties of his office.

§ 14. It shall be the duty of such commissioner to examine into and report to said board the condition of the insane and idiotic in this State, and the management and conduct of the asylums and other institutions for their custody. The duties of said commissioner and those of said Board in regard to the insane shall be performed, as far as practicable, so as not to prejudice the established and reasonable regulations of such asylums and institutions aforesaid; and it shall be the duty of the officers and others respectively in charge thereof to give the members of said board and such commissioner at all times free access to and full information concerning the insane and their treatment therein. It shall also be the duty of such commissioner, under the direction of said board, to inquire and report, from time to time, as far as he may be able, the results of the treatment of the insane of other States and countries, together with such particulars pertaining thereto as he may deem proper, or the said board may require; and he shall perform such other duties as the board may, from time to time prescribe. The authority conferred upon said board and commissioners to issue compulsory process for the attendance of witnesses, administer oaths and to examine persons under oath, is hereby conferred upon said commissioner of lunacy in all cases where there is, in the opinion of the board or said commissioner, from information given to the board or to the said commissioner, or otherwise, reason to believe that any person is unjustly deprived of liberty, or is improperly treated in any asylum, institution or establishment in this State for the custody of the insane, and he shall report the testimony taken in any investigation to the said board with his opinions and conclusions thereon without delay. The said board of commissioners may, in their report, from time to time, to the legislature, suggest any improvements they think desirable for the care and treatment of the insane, with such facts and information pertaining thereto as they may deem expedient and proper, and such report shall be made annually on or before the fifteenth day of January.

§ 15. This act shall take effect immediately.

STATE OF NEW YORK }
Office of the Secretary of State, } ss.

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

G. HILTON SCRIBNER,
Secretary of State.

AMERICAN
JOURNAL OF INSANITY,
FOR OCTOBER, 1873.

PROCEEDINGS OF THE ASSOCIATION OF
MEDICAL SUPERINTENDENTS.

The Twenty-seventh Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, commenced its session at the Eutaw House in the City of Baltimore, and was called to order at 10 A. M. of Tuesday, May 27th, 1873, by the President, Dr. John S. Butler.

The following members were present during the session.

Dr. J. P. Bancroft, New Hampshire Asylum for the Insane, Concord, N. H.

Dr. J. W. Barstow, Sanford Hall, Flushing, New York.

Dr. C. K. Bartlett, Minnesota Hospital for the Insane, St. Peter, Minn.

Dr. D. R. Brower, Eastern Lunatic Asylum, Williamsburg, Va.

Dr. D. Tilden Brown, Bloomingdale Asylum for the Insane, New York City.

Dr. Geo. Syng Bryant, First Kentucky Lunatic Asylum, Lexington, Ky.

Dr. John S. Butler, Hartford, Conn.

Dr. John H. Callender, Hospital for the Insane, Nashville, Tenn.

Dr. Edward R. Chapin, Kings County Lunatic Asylum, Flatbush, N. Y.

Dr. John B. Chapin, Willard Asylum for the Insane, Willard, N. Y.

Dr. Wm. M. Compton, State Lunatic Asylum, Jackson, Miss.

Dr. D. B. Conrad, Central Lunatic Asylum, Richmond, Va.

Dr. John Curwen, Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Dr. James H. Denney, Retreat for the Insane, Hartford, Conn.

Dr. Wm. H. DeWitt, Assistant Physician, Longview Asylum for the Insane, Carthage, Ohio.

Dr. Joseph Draper, Vermont Asylum for the Insane, Brattleboro, Vt.

Dr. B. D. Eastman, Worcester Lunatic Hospital, Worcester, Mass.

Dr. Pliny Earle, Northampton Lunatic Hospital, Northampton, Mass.

Dr. M. G. Echeverria, New York City.

Dr. Orpheus Everts, Indiana Hospital for the Insane, Indianapolis, Ind.

Dr. F. T. Fuller, Assistant Physician Insane Asylum, Raleigh, N. C.

Dr. John P. Gray, State Lunatic Asylum, Utica, N. Y.

Dr. Thomas F. Green, State Lunatic Asylum, Milledgeville, Georgia.

Dr. Richard Gundry, Athens Lunatic Asylum, Athens, Ohio.

Dr. Wm. B. Hazard, St. Louis County Lunatic Asylum, St. Louis, Missouri.

Dr. James C. Hallock, State Emigrant Hospital for the Insane, Ward's Island, N. Y.

Dr. Geo. F. Jelly, McLean Asylum, Somerville, Mass.

Dr. Thos. S. Kirkbride, Pennsylvania Hospital for the Insane, Philadelphia, Penn.

Dr. A. H. Kunst, Assistant Physician West Virginia Hospital for the Insane, Weston, West Va.

Dr. Henry Landor, Asylum for the Insane, London, Ontario.

Dr. Edward Mead, Psychopathic Retreat, Winchester, Mass.

Dr. S. I. F. Miller, Southern Ohio Lunatic Asylum, Dayton, Ohio.

Dr. Chas. H. Nichols, Government Hospital for the Insane, Washington, D. C.

Dr. Isaac Ray, Philadelphia, Penn.

Dr. Jos. A. Reed, Western Pennsylvania Hospital for the Insane, Dixmont, Penn.

Dr. F. E. Roy, Quebec Lunatic Asylum, Quebec, Canada.

Dr. John W. Sawyer, Butler Hospital for the Insane, Providence, Rhode Island.

Dr. S. S. Shultz, State Hospital for the Insane, Danville, Penn.

Dr. A. M. Shew, General Hospital for the Insane, Middletown, Connecticut.

Dr. G. A. Shurtleff, Insane Asylum of the State of California, Stockton.

Dr. T. R. H. Smith, State Lunatic Asylum, Fulton, Missouri.

Dr. R. S. Steuart.

Dr. Wm. F. Steuart, Maryland Hospital, Catonsville, Md.

Dr. Wm. H. Stokes, Mt. Hope Retreat for the Insane, Baltimore, Maryland.

Dr. Francis T. Stribling, Western Lunatic Asylum, Staunton, Va.

Dr. J. D. Thomson, Mt. Hope Retreat, Baltimore, Md.

Dr. John E. Tyler, Boston, Mass.

Dr. C. A. Walker, Boston Lunatic Hospital, Boston, Mass.

Dr. E. H. Van Deusen, Michigan Asylum for the Insane, Kalamazoo, Michigan.

Dr. R. M. Wigginton, Assistant Physician, Hospital for the Insane, Madison, Wisconsin.

Dr. James W. Wilkie, State Lunatic Asylum for Insane Criminals, Auburn, N. Y.

Dr. J. H. Worthington, Friend's Asylum for the Insane, Frankford, Philadelphia.

The minutes of the last meeting were read and approved.

Dr. R. S. Steuart, President of the Maryland Hospital for Insane Persons, welcomed the Association.

Mr. President and Gentlemen of the Association:

I beg leave on the part of the gentlemen of the corporation I represent, and on the part of Dr. Stokes, of the Mount Hope Retreat, and Mr. John Laurin Norris, of the Shepherd Institution, to express the great gratification we all feel at your having selected Baltimore for your present meeting, and for your safe arrival in our city.

I remember with great pleasure, your visit twenty years ago, when we were assembled in this same room; and although all who met then are not here on this occasion, some having passed to that "country from whose bourne no traveler returns," yet I am well assured that others are present who are fully worthy of the places they now supply, and to all we now proffer a cordial welcome. It was to me especially an interesting occasion when you

met me here in 1853. It was at my request, as I was about to select a site and adopt a plan for a new and more enlarged Hospital for the Insane, having been honored by the Legislature of Maryland with this commission. I wanted the advice and experience of those more experienced in such matters than I was then, to aid me in my undertaking. Some of those who kindly aided me at that time, I now have the pleasure to see here again, and they will find that the plans then approved, have been in the main followed. Many circumstances not necessary to detail, have retarded the completion of this work, and though far advanced it will still require some years to make it complete. I would have had still more pleasure in accepting your visit a year hence, nevertheless, we are all glad to welcome you among us, and we will endeavor to make your time pass as agreeably as we can during your short sojourn.

I am also deputed by his honor, the Mayor of the city, to offer you a hearty welcome, and to say he will do himself the honor to visit the Association during its session, and that he hopes your body will visit the Bay-View Alms House, which is the especial charity of the city of Baltimore. If perfectly agreeable, we will be happy to receive yourselves and your ladies, on the 29th. I will make suitable arrangements to convey you all to Spring Green Asylum; and Gentlemen, when you make the visit, I beg you to see for yourselves, and to criticise freely our plan and its execution. I am aware that when our hospital was commenced, very few architects had turned their attention to hospital architecture for insane persons. Much has been learned in the last twenty years, and candid criticism may not only enable us to improve on our work, but serve as lessons for the improvement of those hospitals that will have to be built at no distant time. I am quite sure we have but one object in view, that of carrying the method of improving the condition of the insane to the highest point of excellence.

Dr. J. S. BUTLER, President. In the name of the Association I thank you, sir, for your kind and courteous welcome. The wisdom of the Association in selecting Baltimore for the place of this meeting is shown by the number of members now in attendance, being the largest we have ever had at the opening of the session. I have no doubt that we shall find the hospitality of your city equal to its beauty.

Letters were read from Drs. Camden, Workman, Hughes, McFarland, Jacobs, Hemenway, and DeWolf,

expressing their regret at being unable to attend this meeting.

A letter was also read from Sir James Coxe, of Scotland, in answer to one sent by the President, Dr. Butler.

On motion of Dr. Nichols, the President was requested to appoint the usual standing committees.

The Committee on Business was announced as Drs. R. S. Steuart, Stokes and Curwen.

On motion of Dr. Gray, it was

Resolved, That the medical profession of Baltimore be invited to attend the sessions of the Association.

On motion, a recess was taken for fifteen minutes.

On reassembling, the President announced the Committee on Resolutions, Drs. Earle, Ray and Green, and the Committee to Audit the Treasurer's Accounts, Drs. Reed, Gundry and Conrad.

Dr. Curwen, from the Committee on Business, made the following report, which was accepted:

The Committee on Business respectfully recommend that the sessions of this morning and afternoon be devoted to the reading and discussion of papers; that the Association spend the evening sociably at the residence of Dr. Stokes from 9 P. M. On Wednesday the Association will start at 10 A. M. to visit Mount Hope Retreat, returning at 4 P. M., visit Bay-View Asylum, and hold a session at 8 P. M. On Thursday the Association will hold a session in the morning and visit Maryland Hospital near Catonsville, in the afternoon, leaving the hotel at 12 M., and hold a session in the evening. On Friday the Association will hold a session in the morning, and visit the Shepherd Asylum in the afternoon, leaving the hotel at 12 M., and hold a session in the evening.

The President announced that remarks were in order on the progress of hospital matters during the past year, and that Pennsylvania would first be heard from.

DR. CURWEN. Mr. President, I rise to make a few remarks in order to draw out other gentlemen, by stating what has been done in Pennsylvania during the past year. Most of you will recollect

that at the meeting one year ago, I stated distinctly that we intended to push the matter of the accommodation for the insane until Pennsylvania was provided with all the institutions necessary for the purpose. In the month of June, following the last meeting of the Association, the Medical Society of the State of Pennsylvania, appointed a committee to memorialize the Legislature for a hospital for the insane, for the ten northwestern counties. That memorial was extensively distributed. At the meeting of the Legislature, a bill for the establishment of the Hospital, was presented and passed the Senate unanimously. It was sent to the House of Representatives, and as soon as it was reached in the regular course of business, it passed that body unanimously. The bill has not yet been signed by the Governor, although his signature is an assured fact. He stated to me distinctly last week that he would approve it, his reason for the delay being that the fiscal year commenced on June 1st, and he wished the commissions of the gentlemen appointed to select the site, and erect the building, to date from that day.

The hospital at Danville was prevented last year from receiving the full appropriation asked, by the action of some of our medical friends in Philadelphia, who thought that the money designed for the hospital at Danville would be better applied for a general hospital in Philadelphia, and succeeded in persuading the members of the Legislature to that effect. This year, notwithstanding an appropriation of \$100,000 to each of the medical schools in Philadelphia, the Legislature made an appropriation of \$100,000 towards the completion of the hospital at Danville.

When the bill relative to the appropriation of \$100,000 to the Northwestern Hospital, was before the Senate, a Senator made some inquiries relative to the necessity of the hospital, as it would involve a very large expenditure of money before it was completed. He received so many quick and decided answers as to the absolute necessity of a hospital, that he was very careful to disclaim all opposition to the measure. My friend from Mississippi, was last year anxious to know how we managed these matters in Pennsylvania. He will learn by what I have stated that if he will induce the medical profession of Mississippi to join him in the work, he will have very little trouble in obtaining all he may need for the insane in his State. The Board of Public Charities of Pennsylvania, were very anxious to have some provision made for the "criminal insane," and they had a bill carefully prepared which was read and reported in the Senate, requiring the Commissioners

for the erection of the State Hospital for the Insane at Danville, to fit up fifty rooms on the foundations already laid, for the accommodation of that class. The discussion on the bill was very general in the Senate, and it fell after proper and just objections had been made to its passage. Probably Dr. Kirkbride had more to do in defeating it than any one else.

Dr. GUNDRY. Mr. President, I have no report to make, and I do not know that a special report is needed.

We are getting along, in our poor way in Ohio, as well as we can. As you are aware we have met with a misfortune, I believe since the last meeting of the Association. A large portion of the Northern Institution was burned down, making the second institution destroyed by fire in Ohio. To replace that, the Legislature of Ohio has sanctioned plans and given means for the rebuilding of the institution, virtually appropriating \$500,000 for the purpose. In other words it has sanctioned that amount as the limit of the cost, and given in money, as the limit for the present year, \$120,000. The building to replace the burned one will be a fine one in appearance, and certainly one better adapted to resist the encroachments of fire. The building will be entirely of iron and brick, except the flooring and ornamentations. The Columbus Institution is going on, and will be completed in a year or two, I understand. That is also fireproof, the major part of it being of brick and iron and no wood of any account, except where necessary. The Athens building, entirely completed is nearly fireproof. We can not alter the plan, (for like the laws of the Medes and Persians, it is unalterable) and the plan originally was not for a fire-proof structure. It will have iron and brick under the flooring and also iron and slate for roofing. The new building will be well adapted for 570 patients, and I am sorry to say, I am afraid that within one month of its being opened, the place will be full. We shall transfer from other institutions probably a very large number of patients, the State having been divided into appropriate districts for that purpose, and other institutions having many from this district. Meanwhile a large portion of the State is left unprovided for. Although the Legislature may be prompt in awarding accommodations, the number increases faster than the places for their care, and should all our institutions be completed, between 300 and 400 known to be insane, will be unprovided for.

There is an effort being made for the welfare of the insane, and I think we shall soon have a building in the northwestern part of the State, located in or near Toledo. We now have an institution

there for 100 patients which will probably be a nucleus for the other.

Dr. GREEN. How many institutions have you in operation in the State now?

Dr. GUNDRY. Probably three, having abandoned Longview.

Dr. GREEN. Including those for idiots and epileptics?

Dr. GUNDRY. Idiots are prohibited, and epileptics unfortunately are also. I do not know that I need say anything more on the subject. We are doing as well as can be expected in a poor impoverished country like ours.

Dr. CONRAD. About the prospect of a colored hospital in Richmond, I have nothing encouraging. Our efforts have been very unsuccessful of late, and I do not know that the future is much brighter.

Dr. BRYANT. In Kentucky there have been for more than two years past, a number of insane persons unprovided for. Many have been confined in places of safety other than asylums.

The Legislature has, at last, awakened to the importance of providing for that class of unfortunates. Recently the State Charitable Institutions have been reorganized, and provision made for two additional asylums for the insane. The Institution for Feeble Minded Children, at Frankfort, is now converted into the Third Kentucky Lunatic Asylum. The House of Correction, near Louisville, is converted into the Fourth Kentucky Lunatic Asylum. Of the two previously existing, the recent act makes a slight change in the name: the one at Lexington being now known as the First Kentucky Lunatic Asylum, and that at Hopkinsville as the Second Kentucky Lunatic Asylum.

I had hoped that representatives from every one of these would be here; but Dr. Rodman, Superintendent of the Second, is detained by the condition of his family. Dr. E. H. Black, is Superintendent of the Third, and Dr. C. C. Forbes, is Superintendent of the Fourth. Dr. Forbes told me he expected to be here.

I believe that when the Third and Fourth hospital buildings are ready for patients, the State of Kentucky will be amply provided for the care of the insane.

Dr. KIRKBRIDE. Did I understand Dr. Bryant to say that the Fourth Institution was in connection with the House of Correction?

Dr. BRYANT. No, sir; the building was used as a house of correction for young persons. It is no longer used for that purpose, but is now being refitted for an insane asylum.

Dr. CALLENDER. Since the last meeting of the Association, we have made some healthy and satisfactory progress for the proper

accommodation of the insane at Tennessee. I was fortunate enough to have gentlemen well known to assist me; one a member of this Association, who became a member of the Legislature, and who seized upon that conjunction of circumstances to press the matter. I used, with efficiency, the resolutions offered by Dr. Kirkbride, and passed a year ago, and without difficulty urged upon the members of the Legislature this subject, until, without a dissenting voice, seventy-five thousand dollars were granted for the commencement of two additional asylums, one in the western portion of the State, upon places to be approved by the Governor and a special commission—experts in the construction of such institutions. I have the assurance of the Governor that, after the adjournment of the Association, he will immediately commence the work by traveling and examining sites. I feel that within two or three years, the State will be in better condition than now.

In regard to insane criminals, to which Dr. Curwen referred, it has been the custom of the State authorities to send the insane convicts to our hospital.

I remonstrated against it twice, and had a bill introduced into the Legislature, forbidding the association of insane convicts, with our unfortunate insane who were not criminals. The limitation to the session of the Legislature—seventy-five days—prevented the passage of the bill; but I understood there was no objection to the measure.

So confident was I of its becoming a law, that I dismissed seventy-five of the insane convicts, and have not received any since. I would ask Dr. Bryant whether the Third and Fourth Insane Asylums of his State are not intended by statute for the chronic and incurable insane.

Dr. BRYANT. Yes, sir. I omitted to state that. I would further add that the chronic cases in the First and Second Institutions, are to be transferred to the Third and Fourth.

Dr. BROWN. Which is, to some extent, in conflict with the expressed sentiments of this Association.

The PRESIDENT. I suppose we are all glad to welcome among us our friend, Dr. Green, Superintendent of the State Lunatic Asylum, at Milledgeville, Georgia, from whom we would be pleased to hear.

Dr. GREEN. Up to 1860, our Institution was in a very unsatisfactory condition, with very imperfect provision made for those unfortunate people. We have always been obliged, by the law of Georgia, to receive all idiots and epileptics, and that condition still

exists, despite my most earnest efforts to put the matter on a different footing, and have a separate institution for the care of the idiots, and require our epileptics, or those that were not proven to be dangerous, to be kept by their friends or in the counties where they reside. In 1860, we perfected the original plan of our Institution, and hoped we would have satisfactory accommodations for the insane of Georgia, for many years, and doubtless, that would have been true, if the separate accommodation of epileptics and idiots could have been accomplished. It was not, however, and in a few years the Institution was crowded to such an extent that we were obliged to refuse additional patients, except as vacancies occurred, until additional accommodations were provided by the Legislature. I still urged the erection of separate buildings for the accommodation of idiots and the colored insane, of whom we have about a hundred. I noticed a statement about a year ago, that arrangements had been inaugurated, (I think in Ohio,) somewhere about four years back, for the accommodation of the colored insane, which was announced as being the first effort to provide for this unfortunate class of people. I think it was in the Southern States that this provision was first made. As far back as 1851, Gov. Cobb and myself had frequent interviews in regard to the necessity of providing for the colored insane in the State of Georgia at that time. We finally decided upon a plan likely to be acceptable to the Legislature and people, and to aid him, I addressed a circular letter to some one of the county officers in every county in the State, requesting that they would give me reliable information of the number of insane negroes in their respective counties, not embracing in such statement the congenital idiots or those subject to fits, but to give the number of insane only, and I ascertained in that way that at that time there were but forty insane negroes in the State of Georgia, with a negro population of over 400,000.

Dr. KIRKBRIDE. Did you think those statements reliable?

Dr. GREEN. I had no reason to doubt them; I took great pains to secure their being so. The result may, to some extent, have been different from the real fact, owing to the difficulty of some ignorant persons to determine who were insane. The liability to call all insane people "fools," and all idiotic, "insane," was more likely to increase than diminish the number. I had reason to believe the statements correct. I subsequently came north for the purpose of making a general tour in the northern and northwestern States, and was astonished at the comparatively

greater number of those people found in the institutions I visited. I was born in Beaufort, S. C., and lived in Georgia since a year and a half old, was then in my forty-eighth year, and I had never seen half a dozen insane negroes, and was therefore surprised at the number I met with in my tour. I submitted my opinions as to probable reasons for this difference to gentlemen in charge of the large pauper establishments in which I found them, and they did not hesitate to admit the probable correctness of those views. The influences then operating in that section of the country tending to such results are now rife with us. When those people were in a state of slavery they were taken care of and were not permitted to run into every possible excess, to remain up all night to drink and carouse, &c. When they were sick they had proper medical attendance and nursing. They, as a class, were most assuredly not subject to such privations as were calculated to impair their health. Then the better class had no cares or anxieties about anything. If a negro man had a sickly, feeble wife, and house full of little children, unable to perform any labor for their support, he did not lie down at night in care and anxiety at the prospect of their suffering in case of accident to himself. His prospects of recovery, in case of sickness, were not impaired by such influences. Now all this is reversed and furnishes reasons, very satisfactory to my mind, for the manifest increase of insanity among the colored people. I have now under my care a hundred of them, and I do not suppose I have half the number that are in the State. The project of Gov. Cobb and myself for providing for them in 1851, was never carried into effect. The Legislature did not then deem it necessary, the number was so small and their owners were by law bound to take care of them. In 1865, after the emancipation of the negroes, and their being thrown upon their own resources, the people who owned them and who were now unable or disinclined to support them, were making numerous applications for their admission to the asylum; and in two or three cases they were put down upon the premises and clandestinely left there. I made every effort in my power, with the Legislature, to have provision made for them at once, but did not secure that object until 1866, when provision was made for taking care of one hundred of them. In August, 1867, we commenced to receive them, and have continued do so, the buildings having been since enlarged. Prior to the first of July last, our Institution was for four years so crowded, that we were unable to receive any patient except as a vacancy occurred. At that time certain

additions, (very injudiciously, I think,) were made to the building, which enabled us to provide for the numerous applications, (over two hundred,) yet on record. We are again in precisely the same condition, without an unoccupied room in the Institution. What we shall now do, I am unable to say, unless the Legislature will act more sensibly and liberally, and make at least separate suitable provision for the idiots. I am sorry to know that the same spirit, in this connection, does not exist with us, that influences the action of other States. The prominent idea with us now seems to be, how we can arrange to save most money.

Dr. EARLE. Some pretty important changes have occurred in Massachusetts during the last year. Beginning in their chronological order, we have that at the Worcester Hospital. Owing to the encroachments caused by the enlargement of the city, the hospital and its grounds had become surrounded by a dense population, and it was decided to re-build upon a new site. That site was purchased two or three years ago, and, as gentlemen present well know, it had been determined to re-build the hospital on what is called the cottage plan. Within the year a change has taken place in regard to the plan. The former Superintendent of the hospital, Dr. Bemis, resigned his office, and Dr. Eastman has succeeded him. A change in the opinion of the Board of Trustees took place, and it was decided not to re-build upon the cottage, but upon the general plan.

A very excellent modification of that plan—the modifications being improvements—has been designed by Dr. Eastman, and adopted. The building is to be twelve hundred feet in length. They have a beautiful site; and, as Dr. Eastman informs me, they are about to begin the grading of it. The three State hospitals have been crowded during the past year. The receptacle at Tewksbury is full to overflowing; and it has been determined not to exceed the number now there. The necessity of a new hospital is becoming very urgent. A bill was introduced in the Legislature in the early part of this session, and has recently been passed, authorizing the construction of one in the northeastern section of the State. I do not know the exact wording of the bill; but I believe it provides that the hospital shall be either in Essex or Middlesex county.

The hospital at Taunton is defective in its architectural arrangements, particularly in regard to classification.

Dr. Godding determined that he would remedy these defects, if he could get the means, and applied through his trustees, to the

Legislature, for an appropriation to improve and enlarge the building.

That bill appropriating \$125,000, has passed, and probably the reason that Dr. Godding is not here is, that he remains at home to begin the alterations authorized.

Some of the people of Massachusetts have been endeavoring for twelve or fifteen years, to get a separate or a sectional institution for the accommodation of insane criminals; but that endeavor has been in vain. The convict insane are taken to the State hospitals. Many protests have been made against this practice, but, hitherto, without avail. At one time it appeared as if something would soon be done; but nothing has yet been accomplished. Those who have influence with the Legislature, are divided in opinion upon the subject. The State has not convict insane enough to justify the foundation of a new institution for them. Therefore many of our influential men believe it is better, for the present at least, that, if any change is made, a special section of one of the existing hospitals, or of the one which is about to be erected, shall be devoted to them.

Dr. GREEN. The number with us is so small as to demand not even that. We have not received twenty such persons in twenty-seven years.

Dr. EARLE. There is now, in Massachusetts, a very favorable conjuncture of circumstances, which, as I think, will end in the establishment of a separate hospital for that class.

A new State prison is about to be erected, and the Superintendents of all the State hospitals have joined in memorializing the legislative joint committee on charitable institutions, upon this subject. In that memorial they advocate the construction of a hospital in connection with the prison. They propose that it shall be separated from the prison by a high wall; that, for the present, a small section or portion of a larger design shall be erected, and that the convict insane, therein confined, shall be under the charge of the physician to the prison, and, if more convenient, that all the domestic arrangements shall be in common—there being a tram-way to carry the food—and that by and by, when the convicts become more numerous, additional sections be made, so that it may eventually become a distinct institution.

Dr. GREEN. There were a number of convicts in the penitentiary, and in the State prison seeking to come and live with me, but I would not let them. They sent me one in spite of the opinion I expressed, and I cured him within forty-eight hours.

Dr. R. S. STEUART. Forty-five years ago, there were but few Africans or their descendants belonging to Maryland, who became insane. Of this race many more were idiotic in proportion to their own number, and greatly more so in relative proportion to the white race. Such cases as have occurred have been admitted into this hospital on equal terms with all others. But this number has rapidly increased since the blacks have become free, so rapidly that it is now a question in Maryland how to dispose of them. There are probably 300,000 of the African race in Maryland, and it is almost certain from the present condition of this population, that especial provision will have to be made for it; and there is no doubt that in due time they will be carefully provided for in accordance with the best views of this Association.

Dr. EARLE. The subject introduced by my friend, Dr. Steuart, is of very great interest in a psychological point of view; but, for one, I should like to hear the expression of gentlemen from other States, in regard to changes during the past year. I think it an important subject, as it may thus be shown just to what extent our enterprise is advancing. I would propose that the same subject be continued a little longer, and that then the one mentioned by Dr. Steuart be taken up.

Dr. STEUART. I thought the subject was on the topic I took.

Dr. EARLE. The subject was the improvements of the last year, that of insanity among the negroes came in collaterally.

Dr. NICHOLS. It came up legitimately, I think, because some of the gentlemen spoke of it in connection with the improvements.

Dr. BUTLER. (The President.) It seems to me that we can not be better employed than by a continuance of this discussion.

Dr. STRIELING. I would be pleased to hear further remarks relative to the progress that has been made for the provision for the insane during the past year.

Dr. GRAY. I was not in when the subject was first introduced, but I understand from the President, that the question was, as to what had been done in the several States during the past year, in regard to provision for the insane, and any modification of existing provisions. It is well understood in the Association that in the last few years New York has increased her provision—at least prospectively—by commencing the construction of two asylums, additional to the two heretofore existing, the one at Utica, and the one for chronic insane at Ovid; the two additional to be at Buffalo and Poughkeepsie. During the past year the Institution at Buffalo has been fairly commenced, and a portion of the building car-

ried up to the second story ; and I understand that the Legislature has appropriated \$200,000 for continuing the work, and nearly the same amount for the one at Poughkeepsie (part of the latter to pay off their debt) ; and \$150,000 for a State Homeopathic Institution. I suppose ours is the first State where a homeopathic institution has been commenced. A few years ago they proposed to raise a certain amount, I think \$150,000 by subscription, and proposed to the State to give the homeopathic society an equal appropriation. This last \$150,000 I believe, they get without restrictions.

We have made some efforts to increase the medical staff in the institutions of our State. Heretofore we have had three assistant physicians in Utica ; and last winter the Legislature authorized the appointment of a fourth, with the view of enabling us to give each department two assistants, so that we might be able to make more perfect and careful clinical records, and bring the institution, as far as possible, to the highest standard as a hospital. With only one assistant in a department, if he is sick a day or necessarily absent, or has some additional duties, of course there is defective service. He is required to be constantly on ward duty, though it is necessary for all persons in public position to be absent sometimes, not only for recreation, but for study, and reading, and the necessary investigations in connection with such hospitals. There was no opposition to such an appointment after it was explained, and the bill passed both houses without a negative vote. The institution at Ovid was also given a fourth physician. There have been some attempts to modify legislation in our State. We have had Dr. McFarland's former patient, Mrs. Packard, in consultation with the Legislature. She did not accomplish much, however, in the introduction of Illinois and Iowa bills, or what she called the "personal liberty" bills.

Dr. GREEN. In our State, persons who are expected to pay their board are allowed to be sent to the asylum upon a certificate, with signatures attached, one of which shall be that of a regular physician, "provided that nothing herein contained shall deny to such patients the right of trial by jury, either before or after being sent to the asylum."

Dr. GRAY. That is substantially in force in the organic law of our State, through the *habeas corpus*. The bill referred to was introduced, and passed one house without particular opposition, certainly no member of the medical profession made any opposition or took any action one way or another ; but it did not pass the Senate.

She had two or three bills there and she might have done some mischief, but the fact was too apparent that she had herself a record, and that record is in the proceedings of this Association, in the discussion in New York, a good many years ago. I was asked in regard to the matter, and replied by handing her case to a member of the committee who had this matter in charge, as given in the *JOURNAL OF INSANITY*, by Dr. McFarland some years ago. Also a report of the legislative investigation into the affairs of the State Asylum of Illinois; a part of which proceedings contained the matter of her claiming Dr. McFarland as her affinity, that the Doctor was the first person who had fully sounded the depths of her connubial life, that she was the third person in the Trinity, and her son was Jesus Christ. One of the waggish members hearing this naïvely remarked "that he did not want to oppose her, because he would be resisting the Holy Ghost." She conceives it to be her Divine Mission to visit all the States, and does not believe in her insanity. I suppose she will soon be up in Massachusetts, at least we commend her to some other State.

Dr. TYLER. Mr. President, I should like an expression on this point. When a person—whether it be a puerperal woman or another person—has committed murder while insane, and is confined, should that person ever be allowed to go at large again, or not? Say that a man has committed murder; he is found not guilty by reason of insanity, and sent to a hospital. He recovers his reason. Should that man be allowed to go at large? I think that question was decided, whether by a vote or not, certainly by a majority of individual opinions, when it was up for discussion, that the liability of a person who has once been insane, to become insane the second time, is so great that the person should sacrifice his personal liberty to the good of the community. I think it is a very important subject. It is coming up continually, and I wish very much that members would give their opinions in regard to it. It would not take long.

Dr. BANCROFT. I think the expression of the Association on that subject, will be found in the proceedings as adopted at the last meeting in Boston, in 1868. I think that is among the statements which were adopted at that time.

Dr. TYLER. I read the discussion carefully: but there was not a clear opinion given there.

Dr. NICHOLS. In the remarks which fell from Dr. Green, he at first associated imbeciles or idiots and epileptics, as persons unjustly imposed upon his institution by law. Later, in his remarks, he

dissociated the two classes, and objected particularly to the reception of idiots. I refer to the subject, because the younger members of the Association can hardly realize, without personal experience, the phases through which the opinions of experts and the practice of our institutions have gone upon the subject of the treatment of epileptics, and what I regard as the sound views and practice, that now prevail. I regard, too, as very important that the sound and humane views and practice, that now prevail in the treatment of epileptics, should not be in any way shaken, that no doubt should be left in the minds of members, or of the community who may receive reports of our proceedings.

When I first entered the specialty, epileptics were often mentioned as a class that should be proscribed, or refused admission to the hospitals, and in language, oftentimes of bitterness, that was quite remarkable, going to show that there had grown up in the minds of the community and members of the Association an idea that epileptics were a kind of cursed class. I might add that numbers of the reports of institutions for the insane printed annually a statement that they did not receive epileptics. That opinion has gradually changed, and it has been manifest in the expressions of members of the Association upon that subject, until practically in 1866, some propositions were adopted that were designed by the mover, and by the Association, to cover that question as a matter of principle. Epileptics, as you will perceive are not mentioned. I will read: "All State, County and City hospitals for the insane, should receive all persons belonging to the vicinage designed to be accommodated by such hospital, who are affected with insanity proper, whatever may be the form or nature of the bodily disease accompanying the mental disorder."

The fifth proposition refers to the construction, organization and management of the hospitals. The sixth proposition was adopted as follows: "The facilities for classification, or ward separation possessed by each institution, should equal the requirements of the different conditions of the several classes received by such institutions, whether those different conditions are mental, or physical in their character."

A moment's reflection will convince any one, if he entertains any doubt upon the subject, that an insane epileptic is the patient above all others, that needs the protection of such institutions. They are a class of patients that are dangerous to themselves and to the community; and if there is any class of insane people, that more than another appeals to our true sympathies, I think it is the

insane epileptic. Personally I would apply, if it were in my power, this rule, not only to epileptics in classification, but also to dipsomaniaes; and hence, I have never appreciated the importance of separating criminal lunatics in ordinary institutions for the insane. It seems to me, if there was a proper ward separation, I would not object, but I would certainly object to a separate building for criminal lunatics.

Dr. KIRKBRIDE. Do you not make a distinction? The class, to which reference has been made, is criminals who became insane.

Dr. NICHOLS. I use the word in the popular way. I was about to make a distinction between the person who commits a wrong deed and is insane, and the person who commits a crime and afterwards becomes a lunatic. The objection is mainly to those who become insane after they have committed an act of crime and are undergoing penal confinement. It strikes me, it is difficult to draw the line between the merits of those concerned, and especially as such cases so often grow out of a loose, morbid condition of the mind. Many good men and women have been acquitted on the ground of insanity; but many who are acquitted are persons of bad life and bad character. Nobody has proposed to reject them; and in view of the difficulty there is in distinguishing between these two classes, I have never felt it so important practically to reject the criminal insane as some of my brethren do; but I do think it just as important as any of you do, that they should not be placed in wards with respectable people. If I did have them in connection with our ordinary institutions, I would have them in separate wards or separate buildings; I would prefer separate buildings. Dr. Green referred to the colored insane, and to consultations he had had with the Governor of Georgia, as far back as 1851. It will perhaps be a matter of personal interest, if not personal merit, for me to mention that in 1852, after the plans for the Government Insane Hospital had been drawn and adopted, by government officials, having authority in the matter, I visited our friend Dr. Stribling, partly to submit those plans to him and obtain from him any suggestions, or changes or improvements that he might make, and partly to consult him in relation to the care of the colored insane, having already learned that there were quite a number of such insane in the district, then provided for in the city, and which must be provided for in the projected Government Institution.

If I remember correctly, Dr. Stribling informed me that some effort had been made before the Legislature, I think, to provide

for the colored insane of Virginia; that he had expressed one view of the subject, and Dr. Galt, then in charge of the Eastern Lunatic Asylum, another view; and the consequence was, as the two superintendents of the State Institutions did not agree, the Legislature did nothing. The Doctor's view, if I recollect correctly, was what has since been done, that a central institution, or at least a separate institution in the central portion of the State, should be established for the colored insane. Dr. Galt was in favor of taking them into institutions then existing, and when not too violent, introduce them into wards of white persons, where they could act in the capacity of servants. It should be remembered, that at that time slavery existed in the District of Columbia, as in Virginia, and other States, South.

Upon reflection I concluded to ask Congress for the means to erect separate buildings for the colored insane, to take care of them just as we take care of the other insane. I think we had no patients when this building was commenced. In 1857, we opened those buildings, and all colored insane have been taken in and treated in the way I have mentioned. At that time a colored person was occasionally treated in our Northern Institutions for the insane. The association was more or less objectionable, according to circumstances, but it was gotten along with; and in Bloomingdale Asylum, before I left the charge of it, perhaps two or three, (not so many as half a dozen, I think,) were treated between 1851 and 1852. But so far as I knew, distinct provision for colored patients and the adoption of a distinct practical plan of caring for them, was made at Washington, and in 1857 the house was opened.

Dr. GREEN. What time was that?

Dr. NICHOLS. I am not quite sure.

Dr. GREEN. You say in 1857?

Dr. NICHOLS. That may be correct. Since the war it has been natural for the Southern superintendents to exhibit some zeal for the care of the colored insane, and two of the institutions, I think, claim they made the first provision for that race.

Dr. GREEN. I endeavored to have it done in 1851.

Dr. STRIBLING. Dr. Nichols is in the main correct as regards his visit to Staunton, and his conference with me. In my report to the Legislature of Virginia for the years 1844, 1845 and 1848, I urged that suitable provision be made for insane colored persons, and gave it as my decided opinion, that the interest of both classes required that such provision be entirely distinct and separate from institutions designed for whites, or that if from considerations of

economy it be deemed desirable to place the two classes under the same board of directors, and the supervision and treatment of the same medical officers, the building, and the airing courts should at least, be so located and constructed as that there could be no association between the whites and colored. At that day there were but few free blacks in Virginia; between the slaves, and the uneducated white laborer there existed a mutual prejudice. The former assumed an aristocratic bearing because of their master's supposed wealth, and professed to look upon the latter as their inferiors, designating them as "poor white folk;" whilst in turn these cherished towards them a resentful, and sometimes bitter spirit. It was believed that such antipathy, existing when in health, would be aggravated by the morbid state of feeling so frequently accompanying insanity, and consequently lead to altercations and acts of violence. Insane colored persons were never admitted into the Institution with which I am connected, but my friend Dr. Galt (now deceased) construed the law as requiring, or at least authorizing it, and received them into the Eastern Lunatic Asylum, at Williamsburg. If I mistake not, Dr. Brower, the present superintendent of that institution, found there about forty such, all of whom were not long since transferred to the asylum established solely for blacks, at Richmond. I regret having to state in this connection that, in my opinion, insanity is greatly on the increase with the colored population of Virginia, nor does this surprise me.

Those whose wants had in childhood, manhood and old age, been considerably supplied by their owners—who when sick had received prompt and skillful medical attention and were kindly nursed—were suddenly thrown upon their own resources for food and raiment, and when sick had no one to care for them.

As a general thing they are thriftless, and such as receive good wages for their labor often squander their money "taking no thought for the morrow." Poverty, intemperance, exposure, absence of all comforts, and of the necessities of life, followed by ill health, and mental derangement, are often the result.

Prior to universal emancipation, there was at no time more than about forty colored insane in the Eastern Lunatic Asylum, now there are in the asylum at Richmond, more than two hundred, and it is believed that, including these, there are not less than five hundred in the commonwealth.

It is to be hoped that the next generation will be better instructed, and as a consequence, will be more provident and the better able to take care of themselves.

Dr. LANDOR. What is the colored population of Virginia?

Dr. STRIBLING. I do not know precisely, but think it about 400,000.

Dr. GREEN. Is it less than before the war?

Dr. STRIBLING. My impression is that there has been some diminution, but to what extent I can not say.

Dr. GREEN. Dr. Nichols must have misunderstood me; I certainly did not mean to say that epileptics are a class not to be provided for. I have endeavored to have some separate provision made for idiots in our State. I am aware that epileptics constitute a number of our most violent and dangerous patients, and must be provided for somewhere; but there are a great many of that class absolutely incapable, from deformity and disease, of doing mischief of any kind, who ought to be provided for by their friends, or the different counties, and not allowed to fill up our institutions to the exclusion of others, who by timely proper treatment may recover. I did not certainly mean to say that they ought not to be provided for.

Dr. NICHOLS. It seems to me that Dr. Green and I mutually misunderstood each other. I agree with him entirely that they should not be provided for in connection with institutions for our insane. I was a little afraid that the Doctor would include insane people whose cases were complicated with epilepsy, in those he would exclude from institutions for the insane.

Dr. GREEN. I am unquestionably for provision for all insane people.

Dr. NICHOLS. In relation to colored insane, my memory was certainly at fault. Of course Dr. Stribling recollects his own efforts on this subject better than I would. It seems to me that I was more indebted to the Doctor for the plan pursued at Washington, than I thought, and I am very glad to acknowledge it.

The PRESIDENT. In regard to the introduction of visitors and strangers to the Association, permit me to suggest that, simply through inadvertence, it has been done, occasionally in a manner somewhat deficient in due courtesy and dignity. Such introductions hereafter will be first made to the Secretary, by him to the President, and by the President to the Association, who will rise to receive.

On motion the Association adjourned to 3 P. M.

AFTERNOON SESSION, May 27th.

The Association was called to order at 3 P. M., by the President.

The President announced as the Committee on the time and place of next meeting, Drs. Callender, J. B. Chapin and Shew.

The report of the Auditing Committee was read by the Secretary as follows :

The Committee appointed to audit the accounts of the Treasurer, report that they have carefully examined the same, and find them to be correct, and they recommend that an assessment be made on each member of the Association, of five dollars, to meet current expenses.

J. A. REED,
R. GUNDRY,
D. B. CONRAD,

Committee.

Dr. Ray introduced to the Association a gentleman from Japan, Dr. Mayeda, stating that he is now studying in Philadelphia, and is giving particular attention to diseases of the mind, and methods of treatment. "He is accompanied by my friend and neighbor, Dr. Ashmead, who is directing his studies, and I ventured to assure them that the Association would give them a cordial welcome.

I can not help saying in this connection that it must be exceedingly interesting to us and to our particular work that this incident bids fair, I think, to be the first step towards the introduction of insane hospitals into that interesting country."

[The Association rose to their feet to welcome the visitors.]

Dr. BUTLER, (The President.) Allow me to say in the name of the Association, that we are exceedingly happy to meet him and give him our cordial welcome, and that the members of this body will extend to him every aid in their power. The movement in Japan is certainly one of the most remarkable events of the age, and we are very happy in thus meeting this gentleman at the present time.

[The members of the Association resumed their seats.]

THE PRESIDENT. Gentlemen of the Association, there is another Committee to be appointed which I can not name without emotion. It is the one "On Nomination of Officers." This Committee will consist of Drs. Kirkbride, Stribling and Barstow.

It is in my opinion eminently proper that the President of this Association should be a Superintendent in active duty. Having retired from the Superintendency of the Retreat, and having also, occupied this chair for the full time determined upon in my own mind when elected to it, I hereby resign the office of President.

I pray you gentlemen, to accept my hearty thanks for the unvarying courtesy, kindness and forbearance which I have received from you all.

DR. KIRKBRIDE. I think I express the feelings of the whole Association when I say that any circumstance which may lead our respected President to retire at this meeting, will be received with regret. I trust he will remain its presiding officer at least until the close of the present session, which would give time to the committee to make the nominations. I do not see that his having retired from his special duties as Superintendent, should cause him to retire from the Presidency of this Association. Our by-laws make him eligible to the position as long as he is connected with the Association. I am sure his retirement from the chair at any time will be received with regret, and, as I have already said, I trust that he will at least consent to continue in his present position during this meeting.

Dr. Gray then read a paper on some points in the Pathology of Insanity. As introductory the Doctor said :

I would first state that in the portfolio on the table are photo-micrographs of specimens from the healthy brain, also from acute, sub-acute and chronic mania, melancholia, dementia, epilepsy and general paresis. We found it difficult to secure a healthy brain; these specimens are from a vigorous healthy young man who was suddenly killed, the brain received the same day of the accident. A brief description of each case and specimen will be found which the members can examine. Since we have commenced the microscopic work, we have prepared something over five hundred microscopic slides of brain and nerve tissue, and taken over a hundred photo-micrographs.

What I shall read to you can hardly be entitled a paper or essay, certainly not exhaustive.

(The paper appears in the JOURNAL.) Since the preparation of this article, within a few days, I have read in the April number of the *Medico-Chirurgical Review*, a review of the literature of this subject, and also a paper by Rutherford and J. Batty Tuke. Some of the brain changes that are mentioned in this paper, in the review and paper now alluded to, are considered, and a difference of opinion is held by those writers, especially touching the existence of the perivascular space and its contents. They have reconsidered their views, and taken grounds opposed to Robin, Lockhart Clark and others; however, I do not propose to enter upon any remarks on those papers, and have only referred to them here, to say that they are a most valuable *résumé* of the best authorities in pathological investigations, and are well worth the careful attention of the members of the Association.

Dr. ECHEVERRIA. I had occasion last August, to pay a friendly visit to Dr. Gray, during which, I greatly improved my knowledge, among other things, by repeated examinations of most of the preparations that furnish the materials for his valuable communication. The first peculiarity that displayed itself strikingly on comparing the different morbid specimens, and indeed a most consequent one, as already noticed by Dr. Gray, was the great similarity between the alterations they exhibited of the cerebral tissue in the various cases.

I can not speak of the specimens without referring to the most admirable manner in which they had been put up by Dr. Kempter, as well as to his unsurpassed ability as a microscopist, and the wise precaution thus taken from the beginning by Dr. Gray to secure in his researches every element of precision and success. The results of my own microscopical investigations of the brain in epileptic insanity, agree essentially with those corresponding to the other forms of insanity described by Dr. Gray. I have considered the alterations in several of my cases as miliary sclerosis. I see no reason why such minute circumscribed degeneration might not play an active part, as surmised by Dr. Gray, in the etiology of hallucinations and other abnormal sensorial manifestations. I wholly dissent from the morbid origin of the perivascular sheath of the cerebral capillaries as advanced by Rutherford and Tuke. Being an intimate friend and pupil of Charles Robin, I had the opportunity of seeing several times, his own preparations of this perivascular sheath, that he discovered, and fully described in one of the first volumes, of Brown Séquard's *Journal of Physiology*. From what Robin then showed to me repeatedly, and my own subse-

quent microscopical study of the cerebral blood-vessels, I am satisfied beyond all doubt of the existence of the perivascular membrane in the normal brain. Robin did not explain the function of this sheath, but directly upon its discovery, and taking a bold step, he advanced that the perivascular sheath carried the lymphatic circulation of the brain, never before demonstrated. He has recently abandoned these views, and about two or three years ago, Dr. Gogi, an Italian physiologist, succeeded in throwing a coloring injection into the perivascular membrane. I would not argue what the functions of the sheath really are; but I repeat, that I am perfectly satisfied of its existence in normal brains and I have, like Dr. Gray, found it almost always more or less degenerated, in the frequent microscopical examinations I have made of the brain, in cases of insanity.

In epilepsy, as I have already published in my book, the perivascular sheath undergoes considerable degeneration, together with the sympathetic net work surrounding the cerebral vessels, and the coats proper of the capillaries become thicker, as it has been recently noticed also by Batty Tuke. In conclusion, the course so judiciously pursued by Dr. Gray, is the only one to settle whether insanity originates or not, necessarily from physical changes of brain structure. The question has been hitherto discussed mainly on purely speculative grounds; the interesting results that Dr. Gray has brought out, for our consideration, and my own personal study, convince me, however, that we can no longer deny the pathological truth that Dr. Gray's researches so efficiently help to confirm.

Dr. RAY. I was glad to hear the paper, and bear willing testimony to its importance, as connected with future theories of mental disease.

We all know that the pathological anatomy of the brain has thus far furnished no grounds whatever, for a rational theory of insanity. Although the morbid changes have been described with the utmost minuteness in every form of insanity, yet we have been gradually coming to the conclusion that they have but little to do with the disease, being in fact, only the sequel of the disease or something else that has gone before. Indeed it had come to be regarded by many that the brain had nothing to do with insanity. I think Esquirol doubted if the brain was the seat of insanity. The use of the microscope has already accomplished much, and may be confidently looked to for greater results. The scalpel has finished its work. Judging from the observations made thus far,

there is great reason to believe that the microscope has put us on the right track of discovery, and that it may ultimately show where and how the disease actually begins. It looks as if those first initiatory movements, which have been hidden from us hitherto, are coming to light. I think, however, (and I may mention it for the benefit of those who are intending to pursue anatomical investigations,) we ought to guard against reaching conclusions with too much dispatch. The results of microscopical observations must be confirmed by many successive observers, before their accuracy can be placed beyond dispute. So far, it must be confessed, they have been more remarkable for discrepancy than agreement.

One of the conclusions to which Dr. Gray adverted, suggests the question, why, if the radical pathological change is very nearly the same in all forms of insanity, why should the result be so different? I take it that the only conclusion that we can draw is, that this variety depends not upon the quality of the change, but the seat of the change—that all the difference is made by the location of the lesion—that while one part of the brain is perfectly sound, another being diseased, gives rise to certain mental manifestations, because it is this or that portion of the brain and not some other; and so the principle is established that you may have a certain part of the brain connected with a certain form of unsoundness. And then I do not see how such a conclusion as that does not conflict with the idea which many are disposed to adopt, of the solidarity of the mental qualities. Does it not furnish ample ground for that other conclusion, that some faculties or powers of the mind may be disordered, while others remain sound? The emotions may be disordered while the intellect is sound.

Dr. EARLE. I am not specially prepared to discuss the paper. I would say, however, that I rejoice that investigations in this line are being pursued. It is what I have been looking to, for many years, as the only hope in connection with chemistry, of arriving at the truth in regard to the ultimate nature of insanity. It appears to me that there are some facts which oppose the theory that these physical changes are either the cause or the consequence of the mental disease. Assuming that the insanity depends upon them, why is it that old, many times very old cases, long believed to be incurable, suddenly recover? A very interesting case was related to me to-day by Dr. Callender, of a woman, who, although for seventeen years considered incurable, suddenly got well. We have had a case at Northampton, within the past two years. The patient was an elderly lady, who had been in the

hospital between eight and nine years, had previously been at the Retreat, at Hartford, and who ever since I became connected with the institution, had been considered incurable. She unexpectedly began to improve, and soon fully regained her mental health. Every gentleman who has been in the specialty any considerable length of time, must almost undoubtedly, have had personal knowledge of similar cases. I do not know how we can reconcile some other cases with the facts of these organic lesions, assuming them to be such. While I was connected with the Asylum at Frankford, there was among the patients, one of the most abject of that class of cases, of young men, which are generally attributed to masturbation. One day I heard a great deal of noise in the airing court, and went to see what was the cause of it. I found this man keeping the other patients and the attendants, who were with them in almost continuous laughter, by the most brilliant exhibitions of wit. There was a sparkling of the intellect, which would have been creditable to anybody. It lasted an hour or two, then passed away, and he has never shown anything like it since. Those two classes of cases, as it appears to me, are obstacles in the way of the assumption that these changes always accompany the disease.

Dr. KIRKBRIDE. My observations accord with those of Drs. Ray and Earle. In the first years of my connection with the Pennsylvania Hospital for the Insane, it was our rule to make as careful examinations as possible, without the microscope, in every case of death, where the consent of friends could be obtained. I have now a large accumulation of details which were so uniform in character, that as the amount of work increased, we gradually got out of the way of making these examinations with regularity; feeling almost able to say what was going to be the post mortem appearance. We must not expect too much aid in treatment from the microscope or other modern modes of investigation, interesting as they are. There are many cases in which I do not believe any microscope will ever detect any change in the brain; and yet I have no doubt whatever of the brain being the seat of the disease, just as in some cases of marked dyspepsia, the greatest care in a microscopical examination will fail to show any change of structure. The recoveries in cases of insanity of long standing, are very marvelous indeed. The most striking one that ever came under my notice, was that of a lady, who had been in the institution now under the care of Dr. Worthington, and was considered hopelessly incurable, before she was brought to us, as many of her friends have frequently said to me. After seven years of con-

tinued dementia, she began to improve, and a whole year passed before she was perfectly well. She lived many years after her recovery, was in the habit of visiting us constantly until her death, which was caused by an attack of fever, which prevailed in the neighborhood in which she lived. My impression is, that in the year before she began to recover, there would have been found organic changes in her brain, but which at the end of the year would have disappeared through the operations of nature, that helps us so much in all our treatment. I will only add that these photographs shown by Dr. Gray, are beautiful specimens of art : and I think we will all be struck with the uniformity they exhibit in certain forms of disease, general paralysis for instance.

Dr. ECHEVERRIA. The similarity of lesions pointed out by Dr. Gray is not an exceptional phenomenon. The same thing happens with spinal diseases, as demonstrated by Lockhart Clark, whose experience on the subject has been unsurpassed, and who after examination of thousands of specimens of diseased cord, declares, that given a specimen exhibiting a degenerated section of the spinal cord, it is almost impossible to predicate the character of the disease produced by such lesion until we take other data into consideration. Thus it is that sclerosis of the posterior columns originates locomotor ataxy, whereas located in other regions of the spinal cord, it may give rise to different paralytic or neuralgic symptoms.

I look upon the remark made by Dr. Gray to account for the variety of forms of insanity, by the difference of the cerebral regions involved in the lesion, as a very important one, and beg to differ with Dr. Ray, that if it were proved, it would militate against the doctrine of the unity of the mind. The reasons for my belief are easily demonstrated. We know the sciatic nerve is distributed to the muscles of the leg, endowed with different locomotory functions. We admit also that only one nervous force circulates throughout the whole nerve, though it materially differs in its ultimate effects, as it calls into action antagonistic muscles animated by the terminal branches. In like manner the mind operates upon the brain, without dividing itself, but should a lesion impair the structure of a portion of the organ, the intellectual operations to which this portion ministers will be disordered, occasioning some form of insanity, just as the leg's movements of flexion are deranged upon injury of the flexor muscles.

In regard to sudden recovery from insanity, my experience has of course been a great deal shorter, than that of the gentlemen

who have preceded me in their remarks. However, I have had occasion to observe a large number of insane patients without as yet meeting with an instance of instantaneous recovery. There have been some cases, I had regarded already as incurable, where, as in that mentioned by Dr. Kirkbride, the recovery was effected slowly, in a generally unnoticed manner. That there are many diseases caused by the organic lesions nobody will entertain any doubt, notwithstanding the great rapidity with which they may disappear; whereas we frequently come across cases that recover without any treatment of importance. Another fact that tends to explain the recovery of old standing cases of insanity—and I believe Dr. Gray alludes to it—is, that nerve cells are the most resistant nervous elements, wherefore their complete disintegration generally occurs in the last stages of the disease. Bearing these different facts in mind, I see no difficulty in comprehending that a man who has been for a long time insane, may recover without the recovery being effected instantaneously, but in the way explained by Dr. Kirkbride.

Let me simply say, to what has been stated concerning the aid that the microscope has so greatly afforded to our pathological researches, and the confidence of those who put their faith in the forward steps that are yet to be accomplished by the disclosures of this instrument. Ten years ago pathologists acknowledged in despair that no lesions could be demonstrated in cases of tetanus, and, indeed, many who had called the microscope to their assistance, failed to detect them, until Lockhart Clark demonstrated that under high magnifying powers, we can always detect a distinct degeneration of the grey substance of the cord. Similar structural changes have been discovered in hydrophobia, and I have proved the alterations undergone by the spinal cord and sympathetic ganglia in cases of so called reflex-paralysis. For all these reasons let us at least be cautious in arriving at hasty decisions against the microscope, as they are in reality deserved by those who without sufficient skill employ the instrument. Lastly, the sceptical on the subject, will find their doubts removed by looking over the recent researches of Batty Tuke, who, aided by high magnifying lenses, has succeeded in always detecting structural changes of the cerebral tissue in cases of insanity, hitherto described as unattended with physical lesions.

Dr. GUNDRY. Did I understand the paper to say that in all cases of mental hallucination, there was some definite, specific or fixed pathological lesion?

Dr. GRAY. No, sir.

Dr. GUNDRY. I was going to ask whether the investigation, taking that shape, could be directed to that point, and whether a certain number of facts being gathered at this point,—that certain specific lesions are combined with certain classes, or certain species of mental hallucination,—whether the pathological lesion would be the same, varying in locality, or whether pathological lesions would be different, where the locality was the same. These are points, I think, which would help to solve a very important point; for instance, the point whether hallucination itself is a proof of insanity. It has been some years, unfortunately, since I was given to microscopic investigations; but I remember enough to appreciate the labor taken to get up this paper. I would like Dr. Gray, if he can, to give some attention to these points which I think would help to solve a very important question.

Dr. GRAY. I suggest in my paper, that there might be some investigation and some light thrown on that subject. Von der kolk says "I do not remember to have performed, during the last twenty-five years, the dissection of an insane person who did not afford a satisfactory explanation of the phenomena observed during life." I can not pronounce this a fact from my own observations.

Dr. GUNDRY. I wish, remembering my old studies, to make one simple remark. If we have all the lesions discovered or not discovered, we are not to forget one thing, the quality inherent in the cells; that that which makes one man different from another, and which prevails in the whole congeries of cells, must pervade each cell and must enable the whole body or any portion, to resist more powerfully the approaches and attacks, than the same part found in other persons. In other words, that one man may have one lesion, another man the same lesion and yet the effects in each may vary as to the quality inherent.

Is it the effect of fatty degeneration?

Dr. GRAY. Not entirely; all this is explained in the printed matter found in the portfolio alluded to. Dr. Jacobi and Dr. Mary C. Putnam, both of whom are acknowledged pathologists, and have given the subject more attention than I have, while on a visit to the asylum, and examining the slides, and specimens of prepared tissues, thought it must be so; the doctors went over the experimental tests and found they were not; in these photomicrographs the fatty degenerations are referred to and pointed out as well as those of a different character.

I well appreciate the remarks of Dr. Ray, as to the caution nec-

essary in drawing conclusions from the data, derived from limited investigations; therefore in speaking of the conclusions it must have been observed that I considered them as mainly prospective; however, if investigators should finally show that a theory which I have heretofore held was untenable under the facts, I should not hesitate to let the theory go. The investigations we have entered upon have rather been with the view of developing facts to present to the profession, which, with those of other investigators, might ultimately serve as a basis for sound conclusions. In reference to the question of Dr. Kirkbride, as to how a cure could be effected, if these morbid changes were found, I think the remarks of Dr. Echeverria have answered him fully except perhaps on one point, of the probable reabsorption of elements. There can be no doubt of the existence of these morbid products as shown by microscopic observation; probably the same physiological laws prevail in the nervous system as in the other tissues, and certainly it is nothing new to say that reabsorption constantly occurs, the cell may be so pressed by the proliferation of connective elements as for the time to arrest the functional activity, yet its integrity may remain and the reabsorption of amorphous matter, which thus acts only in a mechanical way, may give relief, and a return to soundness occur. The case of acute mania here given is not subject to the criticisms which I have heretofore made upon my own cases of acute mania, that is, that a series of changes had occurred from the initiation of the disease, obscuring some of the original changes; in this case, death occurred from sudden acute congestion of the lungs. It seems to me, just the case to answer the criticisms of Drs. Kirkbride and Ray, and meet the doubt of Dr. Kirkbride as to the real lesions, that occurred in the organic structure, at the very onset of the disease. He seemed to question that lesions might thus be distinguished by microscopic observation. There are few cases of acute mania where death takes place from conditions outside of, and disconnected with the lesions of the brain; this was therefore a fair case to demonstrate the real pathological condition in the early stages of mania. As the case of healthy brain, the man being suddenly killed while in good health, it will be observed how markedly different they are—the sections in each case being taken from the same portion of the brain. In answer to the suggestion of Dr. Gundry, I would state that the case he refers to was moribund when admitted; the man had sometime before fallen backwards while lifting a piece of lumber, and struck on the back of his head, and though described as having “lost his

senses" for a time, he immediately afterward seemed to be in his normal condition, and returned to work as usual; however, he soon began to complain of dimness of vision, flashes of light before his eyes, that he saw blue and other colored stars, had hallucinations of hearing; then gradually failed in mind, and shortly before he was brought to the asylum, became delirious and subsequently maniacal.

The first sections were made, immediately after death, of the optic nerve, between the chiasm and optic foramen; the photo-micrographs are from these sections and show the diseased condition of the vessels, and well represent the aneurismal dilatations of Charcot.

Dr. Echeverria has referred to the opinion of Robin, as established, as to the existence of the perivascular space. Dr. Batty Tuke makes the suggestion that what seems to be a perivascular membrane is merely the prolongation of the pia-mater following the vessels, but confesses he has not traced these prolongations. It would seem in looking at these specimens before us, both of the normal and diseased brain, that a perivascular membrane exists; we have thrown, by the aid of the camera lucida, the specimen upon a sheet of white paper and also upon a screen six feet in diameter; thus each element can be multiplied forty thousand diameters, though distinctness is not maintained under the highest multiplication.

The recent discoveries in regard to lesions in tetanus would seem to throw some light upon this subject; there we have a somewhat similar and rapid proliferation of elements embarrassing the functional action of the spinal cord. In verification of the remark by Dr. Ray that men should be careful in the enunciation of medical theories, I would say that it is very unsafe to assert that patients die insane, in whom no lesions can be found in the brain or cord; this is certainly contrary to the experience of all who use the microscope.

The investigations at Utica were commenced several years ago, and after being carried to the extent of showing that they might be of value to medical science and thus to social sciences as well, the Legislature created the office of special pathologist, which Dr. Hun filled to the present time; this position is now occupied by Theodore Deecke, who has for fifteen years devoted special attention to microscopical work. My assistant physicians have interested themselves in this department, and Dr. Kempster, now Superintendent at Oshkosh, Wisconsin, who, I have hoped, might be pres-

ent here, acquired the art also of photography, and as you will see from these specimens here, the art of photo-micrography. I was not disposed to read my paper till this morning, thinking he might be here to-day.

Dr. RAY. It is certainly a problem in pathology, and probably always will be, how people sometimes apparently recover, when we have no reason to suppose that the organic lesion on which the disease depends, has materially changed. That this phenomenon is not unfrequently observed in regard to many bodily diseases, especially phthisis, everybody knows. It does not necessarily imply that there has been an absorption of the morbid product (when such a product exists); that may remain as much a fact as it ever was. I am not prepared to say, however, that these improvements, whether in bodily or mental disease, are equivalent to perfect recovery. If Dr. Earle had assured me he had examined that patient thoroughly—tested her thoroughly enough to bring out the various faculties of the mind—and had found that she was not at all deficient; that she had as well preserved a mind as she ever had; I would of course bow to the fact. These famous cases of ostensible recovery from long continued insanity, have never, so far as I know, proved to be much more than a cessation of excitement. When tried with any active exercise of mind, the mental deficiency has been made obvious at once. If recovery was really effected after twenty-seven years of disease, it is certainly a very extraordinary fact. I wish the Doctor would tell how much examination he made of that case.

Dr. EARLE. The case I mentioned first was that related by Dr. Callender. The one subsequently referred to was under my own care. The patient had been in the Northampton Hospital between eight and nine years; and had before been at the Retreat, at Hartford. It was nothing like twenty-seven years.

In the case at Northampton, I did not subject the lady to those tests, to which Dr. Ray has alluded. She appeared to be well; and, after she had been home some months, her sister informed us that she considered her perfectly well.

Dr. GREEN. I have seen three such cases, which, so far as any observation goes, were certainly cured. One of these cases was a Baptist minister. That man had been insane twelve years, and was three years in the asylum when he seemed to recover, and in a year afterwards resumed his duties as preacher. When I last heard of him he was engaged in his duties as minister over his charge, and doing as well as ever before. So far as examining

him mentally, an opportunity has not existed for doing so, since he left the asylum; but so far as information goes, he is as well as he ever was.

I know an excellent lady, too, who had been sixteen years insane. For a number of years she was an inmate of the asylum at Columbia, when she was brought to us. After being with us some time, she was much improved, and went home. She remained there but a month, when she expressed a desire to come back. She remained two years longer in this institution when she became as she herself believed, and as I was satisfied, perfectly well. Four years after that, I was called upon to go down to the city of her residence and give an opinion in regard to the mental condition of a man who had killed his wife. While there I spent a day with this lady, who to all intents and purposes seemed to be certainly of perfectly sound mind. She is very much attached to the institution and often writes to us. She is intelligent, with a not very remarkable, but fair, education.

Dr. CALLENDER. Of the patient who has been in my charge seventeen years, I think I made the remark to Dr. Earle, after a critical examination of four or five months, that if she was not a perfectly recovered patient, I had never seen one. I confirm what Dr. Ray says that many of these cases are simply cases of remission and not recovery. With every interview, I have continued to be confirmed in my belief that she is going on to recovery. She was admitted in the year 1856, and has not yet reached her characteristic period.

Dr. ECHEVERRIA. The discussion, as it appears, wanders considerably from the point under consideration, to wit: whether recovery from insanity can take place in an instantaneous manner. None of us doubt that old standing cases of insanity may recover, but as Dr. Ray very justly remarked, it has never been ascertained whether such persons did display the same intellectual capacity after their cure, as prior to their insanity. If recovery is brought about in the same so-called sudden manner observed with other diseases, the phenomenon displays nothing extraordinary, but if on the contrary the cure is truly instantaneous, then we must give up our belief in physical organic change as the essential element of disease; unless we admit, turning to chemistry, the possibility of some sudden molecular reaction in the original composition of the anatomical elements that brings them back to their normal arrangement.

It happens, however, that we have not got to that perplexing

end of the question. We often meet with local inflammations setting in with the most threatening signs of suppuration, or again with acute inflammation, and even swelling of the joints, which, contrary to all expectations, gladly surprise us with their rapid though not instantaneous disappearance. It is therefore very rational and conformable to every fundamental principle of pathology, to admit that in the cases of insanity, under consideration, the cure takes place in the manner just explained, rapidly, perhaps, but not instantaneously. At all events, instantaneous cessation of the brain disease is not warranted by any positive evidence. The evolution of disease is a complex phenomenon, we can not practically regard as an abstract entity, appearing or disappearing in such singular ways. Keeping ourselves within what we observe with the nervous system, that chiefly concerns us, we find self-evident, the correlative action between its different parts that bears out my assertions. The loss of one sense is followed by greater acuteness of the others, the cerebral deficiency of imbeciles does not impede their being sometimes endowed with peculiar aptitudes, by which they excel even persons of perfect cerebral organization. Morel recently reported the instance of a man whose weak and low intellect immediately developed itself, upon the outbreak of the first epileptic fit, to such high degree, that he became a good architect, and subsequently studied with great perspicuity Comte's work on philosophy. And, under whatever metaphysical light we may look on these cases, there is one fact in them we can not eject, which is for us the standing point; namely, the existence of a defect in the cerebral organization of such individuals. The laws of general pathology are fixed and could not, indeed, be altered to suit every obscure case. We may not always understand the incubation of disease, but we know with pretty accurate preciseness how its progress is effected, and that it necessarily involves for its existence, a disturbance of a material nature in the organic structures. Therefore, so long as we will be unable to produce a positive demonstration of morbid physiology, resulting upon functioning of anatomical elements, not disordered in their intimate normal arrangement, or prove that these elements can pass, equally with our thought's quickness, from a deeply-disturbed to a perfectly sound functioning, the instantaneous cure of insanity rests on a no less gratuitous and theoretical foundation than the existence of instantaneous mania, and consequently its assumption could not invalidate the conclusions to be derived from facts of such positive experience as those presented by Dr. Gray.

DR. MEAD. In response to the question that was put in reference to instantaneous recovery, I will relate one which occurred in my experience in 1847. It was a case of acute mania, and of less than one year's duration. After being under treatment for a few weeks, I visited her as usual one morning, and to my surprise and gratification, I found that she was entirely rational. The case was kept under observation for some little time; no recurrence of acute symptoms occurred and she remained well. I had no opportunity to compare her condition after recovery, with what it had been previous to the attack, because she came to me as a patient; but the statement of the friends was, that she was just as well as she had ever been. She visited us once or twice after that, and there were no indications of a disordered mind.

DR. LANDOR. It happens, by a very curious coincidence, that the subject we have been discussing bears very much on a paper I am about to read. My subject is "Hysteria in children as Contrasted with Mania."

After the reading of the paper, the Association, on motion, adjourned to 7 1-2 P. M.

EVENING SESSION, May 27th.

The Association was called to order at 7 1-2 P. M., by the President.

The Secretary read a letter from Dr. Jarvis, respecting the interchange of reports between the American, English and Continental Hospitals.

On motion of Dr. Nichols, it was

Resolved, That the Secretary be requested to communicate with Prof. Henry, of the Smithsonian Institution, in relation to the transmission of reports of hospitals in this country, to hospitals in Europe, and the reception of foreign reports by the Superintendents of hospitals in this country.

The discussion of the paper read by Dr. Landor, was then resumed.

DR. RAY. Mr. President, I will simply mention one impression made upon my mind, by the paper just read, and that is, the necessity of recurring now and then (more frequently than we do) to homely, plain, familiar truths. I fear the tendency of the

present time is too much to go to seek for truths in far remote, and distant fields, to the neglect of those nearer home. Not unfrequently scientific inquirers make the mistake which my venerable mother once did, I recollect, when she called me from my play, and sent me off to a neighbor's in quest of her spectacles, while they were all the time, as I observed on my return, resting on the crown of her own head. Thus by working in the old paths we have the advantage of all the discoveries and experiments made by others, and which are more likely to lead to fresh results, than we are likely to get from inquiries in new and untried directions.

I trust others will remark upon the paper, although the truths it contains are old and homely, they are none the less valuable for being so.

Dr. Earle called attention to some facts of interest in regard to the Tuke family of England.

On motion, the Association adjourned to 9 A. M.

SECOND DAY, May 28th, 1873.

The Association was called to order at 9 A. M., by the President.

Dr. Echeverria commenced the reading of a paper, on Epileptic Insanity, in the course of which the hour of adjournment arrived, and the reading was postponed for the present.

Dr. Kirkbride from the Committee on Nominations, reported that the Committee had agreed to report Dr. Charles H. Nichols, for President, and Dr. Clement A. Walker, for Vice-President. The report was unanimously adopted.

Dr. BUTLER. (The retiring President.) Gentlemen, no word of introduction is necessary, no word of commendation can be required in introducing to you Dr. Charles H. Nichols, whom you have just elected as our President. You have long known him. The history of his connection with the Association, most amply justifies the gratifying confidence you have expressed by your unanimous vote.

To you, Mr. President, I offer my cordial congratulations.

SECOND DAY.—EVENING SESSION.

May 28th, 1873.

The Association was called to order at 7 1-2 P. M., by the President, Dr. Nichols.

The Secretary requested the Association to decide definitely whether it would visit Bay-View Asylum, as the Trustees were anxious to know, so as to make the necessary arrangements for the Association.

Dr. KIRKBRIDE. In view of the engagements that the Association has already made in special reference to several institutions for the insane, it appears to me that it will be quite as much as we can do to visit them; and that much as we may regret it, it will be out of our power to accept the invitation of the public authorities to visit the Alms-house. I would therefore make a motion, that the Secretary be requested to inform the authorities of Baltimore, that while we should be glad to visit the Alms-house, it is out of our power to do so, on account of other engagements.

The motion was agreed to.

Dr. Echeverria resumed, and concluded the reading of his paper on Epileptic Insanity.

The PRESIDENT. Unless the Association otherwise direct, the next thing in order will be the discussion of the learned paper just read by Dr. Echeverria.

Dr. KIRKBRIDE. I have been very much interested in this paper and feel under obligation to the Doctor, for the great pains and labor he has bestowed on its preparation. I do not think there is any subject, connected with insanity, that appeals to our sympathies more strongly than the condition of the epileptic insane. The remarks which you made yourself, Mr. President, upon a previous occasion are most strikingly true. Until a short time since, there certainly seemed to be a tendency among our members, to feel so little appreciation of this form of insanity, or this class of patients, that I am exceedingly glad the Doctor has seen fit to bring the subject so fully to the notice of the Association. I do not know that there is anything in his views from which I dissent, in regard to this form of insanity, or in regard to the responsibility of persons suffering from this kind of disease. The num-

ber of these cases is now exceedingly large, and certainly some definite principles ought to be recognized in reference to their proper treatment. I hope this paper will be one step towards securing this.

Dr. WALKER. I can not let the paper pass without expressing to the author, my sincere thanks for his labor in bringing this subject before us. I am satisfied that this is a more important subject than many of us have any adequate idea of. I believe that our gallows have heretofore been fed with victims of epilepsy, that the disease has, in some way, not been discovered by the medical men, who have investigated the cases, and that those, even, who have suspected it or traced it, have failed in many cases to trace it so plainly that others could see it; that the courts have disregarded the opinions that have been given, and the victims have gone down to their graves in consequence. I believe that it behooves us all, when called to examine cases of unusual and unexplained violence, to bear in mind this subject of epilepsy, its frequency, its compact and settled nature, and how generally, when cursorily examined, it may be entirely overlooked.

I remember some four or five years ago, examining a person lodged in jail under the charge of murder. I had from that evening until five the next morning to investigate the case. I went to the jail and found the young man, who, some weeks before had taken the life of his sweet-heart upon the street. Upon examination, knowing nothing of his antecedents or friends, I was strongly of the impression that he was a victim of epilepsy. At midnight I started out to find his friends in an unsafe location in Boston. I found them, and after an examination of two hours and a half, I failed entirely to find evidence sufficient to confirm my suspicions. I went into court next morning and stated, as strongly as I could, that I believed him to be an epileptic, and that I thought the disease would be found to exist. I failed to satisfy the jury; he was convicted of manslaughter and sentenced to prison. Upon being taken up to the court to have sentence pronounced upon him, and while the judge was uttering the sentence, he fell into what was reported to be a violent fit, so violent that several officers,—and he was a young fellow not much over fourteen,—failed to control him. A physician was sent for, who etherized him, and he was sent back to jail. The physician testified, that he thought the fit was feigned, and did not see any good evidence why it was not. I was not called in the case again; about a week after, he was called up for sentence again, when he was brought in by one door,

walked through the room and taken out by another door. It was ordered by the court that the prisoner be sentenced while walking through, lest he might have another fit. Twenty-four hours after confinement in prison he had a fit. This was over when I was called upon to go and see him; when I entered he bore unmistakable evidence of having had a fit. He had another soon after. It was severe, but when over he went on with his labor like other men. I made proper application to the court and he was transferred to the hospital in my charge. There I learned from his friends, that for years this young fellow had been in the habit of going upon the roof and dancing in the most dangerous positions. The neighbors called it "dare devilment." For years he never slept out of his mother's room. After these dangerous feats at night, he was tied, hands and feet, so that he could not get up. Next morning he would protest against such treatment, and declare he did not know why he was tied; yet, when I asked his friends whether he had had fits, they, in their ignorance, said "No, no," to everything I proposed. The young man remained with me four years, and I think has recovered. I am not certain of it however, but he is out in the community and doing pretty well. I have heard of no violence or strange indications since he left the hospital.

THE PRESIDENT. How long did the fits continue after his admission?

DR. WALKER. Nearly a year before they were arrested. I have no doubt he had *petit mal*, probably for years, before he committed this assault upon the girl.

DR. KIRKBRIDE. Upon what ground was he liberated?

DR. WALKER. He had not had a fit for three years. He was doing remarkably well in the hospital, and was a good patient. During the latter half of the time he was in the hospital, I could not see that he differed at all from a majority of discharged patients. He was there for a longer time than he was sentenced to remain in prison, and ran away; his friends secreted him, and I could not learn his whereabouts for three or four months. I then found he was doing well, and have not troubled myself about him since. About the time of his departure, I was not prepared to discharge him as a recovered patient, and did not record him so on the books. He protested that he had no recollections of following the girl into the street, striking the blow, or carrying the bread knife home.

DR. GRAY. You did not believe it?

Dr. WALKER. His friends did not; I did. I recite this case as one of more than half a dozen, that have come under my observation during the past dozen years. I stated that it was manslaughter. It was an attempt to murder. The girl did not die. If it had been murder, I have no doubt before we could have found grounds for interference, the young man would have been hung. I have no doubt that, with the prosecuting authorities we now have in Massachusetts, he would have been hung, in spite of his disease. I remember another case, a few years ago, which I was called to examine in company with Dr. Ray, where the representations made by the court were such, that if he would offer to retract his plea of not guilty, and plead guilty, he would be sent to state prison. I cite this one case only to bring home to us all, the important lesson of investigating, in the most thorough manner, all these novel cases that may come under our observation, and although we may fail to find evidence, among the friends of the parties, of epilepsy, if the conviction is clear in our own minds, to leave no effort untried to find it out, not only for the good of the unfortunates themselves, but for our own peace of mind in the future.

Dr. GREEN. I do not exactly understand the position assumed in that paper, that in cases of epilepsy, when a man is conscious of the act which he has committed, he is thereby to be held responsible, that he is irresponsible only when he has no recollection of the act which he has committed.

Dr. ECHEVERRIA. Dr. Green misunderstands my remarks, and the quite opposite position I take to that he has just stated. I hold from the very fact that an epileptic acts unconsciously by reason of a fit, he has no power to control, that he is irresponsible. Whenever it shall be demonstrated that such condition of epilepsy was existing at the moment of the misdeed, the epileptic becomes irresponsible, although he might have had a knowledge of his acts.

Dr. GREEN. There was a case of a very remarkable character that occurred in Albany, Georgia, at the trial of a colored man for murder. I advised the lawyer in the case, who thought the legal fraternity to be better doctors than we were, to subscribe for the *JOURNAL OF INSANITY*, and Dr. Ray's work on *Medical Jurisprudence of Insanity*, and to read them. He did so pretty thoroughly. I was in Albany at the time of his trial, and heard it. The colored man was in Albany, and it was known at the time that he had had three convulsions in that city. In the evening he went out and met an old colored man with whom he had no acquaint-

ance, he fell upon him with a bludgeon, and literally beat his brains out, as testified by a colored boy about fifteen years of age. The medical fraternity of the city testified, that a man who had had epileptic fits for twelve years should be held responsible for his actions; that the fact of his having epilepsy for such a long time, should not be ground for irresponsibility. The jury found him guilty of murder, but, fortunately with a plea for mercy. He was sent to the state prison, and after six months died in an epileptic convulsion.

Dr. ECHEVERRIA. Was it proved that he was suffering from epilepsy when he committed the deed? Was he truly rational at the time of the attack, or was it really the fact, that he exhibited an apparently conscious condition when he struck the other man?

Dr. GREEN. I was not there, but a detailed statement of the circumstances was enough to satisfy me. I stated the fact to show that the man was wholly insensible, and yet a man in good standing as a regular practitioner, testified that he was wholly responsible. I simply wished to ask the question whether you mean to require that an epileptic, committing a criminal offence, should exhibit unconsciousness of the fact afterwards, to render him irresponsible?

Dr. ECHEVERRIA. As a general thing their acts are unconscious acts.

Dr. GREEN. I saw an illustration in our own institution, in which a colored patient killed a colored attendant. I was in Milledgeville at the time of the occurrence, attending a funeral. I returned about dark, when the colored attendants came to me with the information that the colored man was in his room and had a knife, swearing he would kill anybody who attempted to enter. I went down there immediately and found quite a gathering of the colored men employed about the place, with one or two white attendants, all afraid to go into the man's room, fearing he would kill somebody. He had killed the man with a knife, the result of gross carelessness on the part of an attendant. I told them to unlock the door, that I would go in, and I did so. I insisted that he should come out, and I asked him why he had committed this extraordinary act of violence. He simply denied it, declaring that he had not hurt anybody, and that such was not his intention. I had his room searched but no knife was found. I wanted to see whether he was unconscious of the act, or whether he was conscious of it, and denied it, as many others had done. He has shown no evidence since of any knowledge at all about it. His colored brethren

were disposed to make quite a serious matter of it, that I did not have him arrested and have him hung. I told them to make complaint and have him tried, that I should do no such thing. He has continued to have epilepsy since that time.

The PRESIDENT. From your knowledge of his veracity and candor, and knowing best his mental condition, is it your impression he was unconscious when he committed the act?

Dr. GREEN. I certainly thought so, sir, and still think so, though he acted in a manner which would justify a belief that he was not. He had been for several days threatening to kill these colored attendants, and swearing to do so on the first opportunity, being incensed against them on account of making his escape into the yard, and being found and brought back by them. I never heard or knew any other reason, but subsequently to that he became very much excited and constantly made these threats. As I said, the killing was the result of the most unaccountable carelessness I ever heard of. There was a large room which we were accustomed to use for dining purposes, and there were two rooms opening into it, one used as a pantry and the other occupied by the attendants. They were admonished very often about the importance of not leaving a knife or other missile by which the patients could do any injury to themselves or others. Only two or three days preceding this occurrence my first assistant was in this room and noticed a piece of iron bar, probably about two feet long, lying upon the table, to which the patients had access. He remarked to the very man who was killed: "If you do not take better care about having such things lying around here, you or some of those around you will have your brains knocked out." They were required to cut wood and put it away for wet or cold weather, and were uniformly instructed to leave the axe used under the bed in the locked room of an attendant, to which none of the patients had access. They had grown careless about this matter, and sometimes left the axe upon the top of the wood in the pantry. At the time of the accident they had just had dinner. Two of the men went into the pantry, when this man got up from the table and passed right behind them to the wood-pile. One of them saw the patient walk up to the pile of wood to break off a splinter, as he thought, and turned away to his eating. In an instant the axe was buried in his fellow attendant's skull. The man walked across the room and soon bled to death.

Dr. SHURTLEFF. I would like to ask Dr. Green one or two questions in regard to the case he has just referred to. It appears to

me very much like some cases that have occurred in my own experience, where threats have been made and carried into execution, but the violent act was really done with a delusion in reference to the person killed. I would like to ask whether this person entertained any delusions with reference to the person he assaulted?

Dr. GREEN. He did not speak of any special reason other than his animosity to them all. He did not state why he committed the act.

Dr. SHURTLEFF. It does not satisfy my mind that the cut was made in an unconscious state, when he was constantly making these threats.

Dr. RAY. I think I have seldom listened to a paper before this Association of greater practical importance than this of Dr. Echeverria. It contains a large mass of valuable, well assumed, well digested information on many of the phenomena of epilepsy which are still in great obscurity. The history of epilepsy in all its relations—its pathological anatomy, its physical symptoms, its effect upon the mental faculties—all these phenomena are matters on which there still is much to be learned, and it appears to me the more we do learn of it, the more we are made aware of our own ignorance; and the farther we advance, the more apparent it is that we have still further to go. The disease, in its early stages, is seldom seen by any one fitted to make any very accurate observation respecting the mental condition of the patient. Ordinarily, physicians regard it as simply bodily disease. They are called in to prescribe for bodily symptoms or bodily conditions, and with them it is merely a case for drugs. The mental condition has but a subordinate place in their thoughts, and when insanity appears, the patient is transferred to the hospital. Then when he reaches the hospital the physician labors under the disadvantage of knowing scarcely anything of the person's condition, especially the mental. Hence it is that we are obliged to witness this discrepancy of opinion in regard to epilepsy in connection with criminal acts.

We scarcely find any two instances in which medical men can agree upon that subject; and if the paper has no other effect than to call attention to those obscure conditions of the mind produced by epilepsy, previous to the full development of insanity, it will have served a most valuable purpose.

With most of the Doctor's conclusions I fully concur. In regard to a few of them, I need only say that they have not been confirmed by my own observation, but they are of secondary importance, and I doubt not, are more or less supported by his observations.

I may not have perfectly understood the Doctor, but he conveyed to me the idea, that in his opinion, all cases of so-called instantaneous, transitory mania, may be referred for their efficient cause, to some form of epilepsy. This may be so, but inasmuch as, in the nature of things, such a connection could not always be proved, the statement should have been accompanied with some qualification. Because if this doctrine is to prevail, transitory insanity could never be received as a defence in criminal acts unless it could be traced to epilepsy, and thereby great injustice might be done. I hope the paper will be printed, and in that shape we shall be better able to appreciate its statements and the value of its conclusions; for certainly a more suggestive paper on this very obscure disease I have never heard.

I believe we are sufficiently warranted in the belief that epileptics may be guilty of very important criminal acts, when to all appearances they are in the normal condition mentally—that they are not at that time laboring under the immediate effects of the disease as manifested either before or immediately after. You know the old notions on the subject were, that epilepsy was not a condition that absolved from responsibility unless the criminality took place within a very short time after the fit. Some old medical writers limit it to three days. Unquestionably, this is all very well so far as it goes; but it is also undoubted from observation, that this condition, before the brain has obtained its normal condition, continues very often, much longer than three or four days, and that the person is just as far removed from the proper condition for weeks—I do not know but months—after or before the fit, as he is within two or three days.

Dr. GRAY. I do not propose to make any extended remarks upon the paper of Dr. Echeverria. I agree with Dr. Ray that it is a valuable contribution to the literature upon the subject. The Doctor has referred to several cases, the unconscious state in which persons seem to be quite aware of what they are doing, and some of these cases he has spoken of as having been under my observation. In regard to one of these cases, the lawyer who attacked me in my office, epilepsy was not suspected by his friends or any one, and he had not communicated his apprehensions before coming to me. He suspected the presence of nocturnal epilepsy, as his wife had told him that he had nightmare, from which she could not wake him. He had observed, also, stains of blood and saliva on his pillow, observed himself becoming irritable, had also felt like striking his wife, with little or no provocation, except her asking

him how he was ; also the fact that there had been a case of epilepsy in the family, and that he had an attack of fainting when about 21 years of age while at college ; he had read up on epilepsy, and putting all these facts together, concluded that he had the disease and came to put himself under observation. A few days after his admission he came into my office, at my request, to make out a paper touching some business matter with his law partner. He sat at one side of the large office table and I at the other. I handed him paper and he said he was nervous and asked me to write and he would dictate. After commencing, I heard a rustle, looked up, and he was stabbing at me with a knife across the table. As I caught his eye he said "God damn you" and started around the table after me. I ran faster than he did, and caught him. There was a little epileptic shudder after I seized him, but he did not speak. I recognized his condition and got him to sit down, and then asked him what he was doing. He said I seemed to be a large man, suddenly getting up to strike him. He had no recollection of the circumstances, although he seemed conscious at the time. He died afterwards utterly demented.

Within a year we received a young man who, without provocation, fired several shots at his mother. He was arrested and put in jail. As no charges were preferred against him, and the authorities were informed he was an epileptic, he was discharged and sent to the asylum. He gave no account of the shooting, though he retained entire consciousness that he had shot at his mother, but was entirely indifferent. He had frequent epileptic attacks while at the asylum, but never manifested any violence. I would make one remark in regard to the case alluded to by Dr. Green, having some bearing on a question which recently came up in New York, in the Scannell trial, whether a person alleged to be insane at the time of an act of violence, who had threatened to do the act before he was insane, had any precedent in the history of insanity. The negro spoken of by Dr. Green was an epileptic. He had made threats previously, manifested violence, and subsequently, in connection with a maniacal frenzy, which, however, is not shown to have any relation with an epileptic attack, carried out his threat. Dr. Green gives no evidence that this epileptic was laboring under any hallucination or mania when he made the threat.

Dr. T. R. H. SMITH. I can most cheerfully unite in bearing testimony to the highly interesting and instructive paper of Dr. Echeverria. It is certainly a very able one, and important in its bearing upon the legal responsibilities of epileptics. I regard it

eminently worthy of publication, and hope it will be printed; and when carefully read, doubt not, it will give an additional impetus and increased interest in the observation and investigation of this class of cases.

Dr. BROWN. I would like to inquire about a case of some interest to me, some time ago; that of Chambers, tried in Brooklyn some years since, in which Dr. Echeverria was interested. If I am correct the man still lives, and I should like to know what has been the result of the Doctor's views, or those of any of his colleagues in this case.

Dr. ECHEVERRIA. In reference to the case of Chambers, Dr. Wilkie is here, and he, can more satisfactorily than myself, reply to Dr. Brown's question. I saw Chambers last summer, and did not notice anything wrong with him beyond a very striking demented look, which equally attracted the attention of my friend Dr. Kitchen, of the Utica Asylum, who accompanied me. I learned then from Dr. Wilkie, that Chambers had behaved in a gentlemanly manner, though subject to periodical attacks of nervous excitement, which were not actually insane attacks. The examination I made of Chambers, and chiefly the unanimous and distinct testimony presented at the trial, led me to believe, as I declared to the court, that Chambers was an epileptic. I have seen many epileptics free from fits as long as they were under the hospital treatment and diet. So far as Chambers is concerned, Dr. Wilkie has not seen him have a convulsive attack, but I still adhere to the opinion I expressed at the trial, and the facts which have since occurred confirm me, that he suffers from cerebral epilepsy, while I yet expect to hear that he has fallen into convulsive attacks. I will now explain myself on a point on which Dr. Ray seems not to have seized my idea; I have not asserted that epileptic insanity, or, as Dr. Ray puts it, insanity existing with epilepsy, involves that the latter must exist constantly and can not disappear. What I mean and contend is, that epileptic insanity, the insane fit of epilepsy, is not solitary, and involves a prior existence or the continuation of the disease in its larvated form, or as fits of *petit mal*, or *grand mal*. I certainly have met with cases of epileptic insanity where the patient has, to all appearances completely recovered. I could, among them, mention that of a lawyer who while suffering from bleeding piles, and under a great political excitement, was seized in the middle of the night with a fit, after sexual intercourse with his wife. The fits were repeated with great frequency and increased severity, generally in the night, attended

with temporary insanity and an irresistible impulse to kill his child. After a few months of treatment this man became free from fits, which have not reappeared now for seven or eight years. He is actively engaged in his profession, and I regard him as cured. I think that without the treatment, his mental derangement would have probably assumed a more continuous form of insanity. I admit instantaneous impulsive acts in relation to the different varieties of insanity, and undoubtedly Dr. Ray will agree with me that such sudden impulsive acts are generally described as instances of instantaneous mania. They may occur throughout a state of transitory mania that is almost always related to epilepsy, or during a fit of vertigo, or in individuals tainted with a hereditary diathesis. It appears to me that these are the only tenable foundations for the doctrine of transitory mania, as held also by Morel and other more competent authorities than myself.

Dr. Tyler alluded yesterday to the disposition that should be made of criminal lunatics and criminal epileptics; at the proper time I would be very glad to hear the opinion of the Association upon this important subject.

Dr. KIRKBRIDE. In view of the very great importance of this subject and that we may have a decided expression of opinion by the members of the Association, it seems to me that something practical might come from this discussion if the whole matter was referred to a committee, and that committee instructed to report at a future meeting of this Association. I propose to make a motion that the subject of the care of the epileptic insane be referred to a special committee of three, who shall report at a subsequent meeting of the Association.

The motion was seconded by Dr. Curwen, and agreed to.

The President appointed as the Committee, Drs. Echeverria, Earle and Walker.

Dr. Compton offered the following resolution :

Resolved, That a committee of this Association be appointed, with Dr. Ray as chairman, to draft and present to the next meeting the form of a law on the subject of criminal insanity, with a view of its adoption by the different States.

Dr. COMPTON. It strikes me that this subject is a very important one. I am sure that every member of this Association will agree with me that the administration of justice in cases of alleged

insanity is very imperfect. I think if our legislators were better informed on the subject they would do better.

Dr. KIRKERIDE. Does the gentleman have in view any further action than that already taken by the Association? He is aware, no doubt, that the whole matter received the attention of the Association during a long series of years. The whole subject was under the care of a committee, of which Dr. Ray was chairman, for a long time, and at the meeting in Boston some years ago, after a long and patient discussion, the Association recommended a project of a law to be adopted by the Legislatures of the different States. Unless we can do some good by simply reaffirming what has been done on other occasions, it would probably be best not to again bring the subject up for discussion.

Dr. COMPTON. My recollection in regard to the proceedings at Boston, (although I was not present) is that the consideration of "the project of a law" was confined mainly to the organization and government of lunatic asylums and hospitals for the insane, and that it did not extend as far as this resolution is intended to reach. My object is to agree, first, among ourselves as to the proper management of cases of alleged insanity before the courts—not to dictate to the bench as to the manner of applying rules of evidence, but to suggest to the law-makers the form of a statute on a subject upon which we assume to know more than any other class of citizens. In the State of Mississippi we have made some progress in this matter, but we still fall short of perfection. In our State, when an individual is indicted for murder, manslaughter or assault with intent to kill, and shall offer the plea of insanity, the trial shall proceed on that plea to the exclusion of all other matters. Should the plea be sustained, the individual is committed to the lunatic asylum for a period of not less than ten years. In some respects it is a good law. It is an ever present prophylactic against emotional insanity. If the plea is not sustained, the trial proceeds on the indictment, to the exclusion of that plea.

I think that an ordinary jury, as we find them in the court houses, is not competent to decide the question of sanity or insanity in doubtful cases. My recollection is, that at the meeting in Boston you did not proceed so far as to recommend the form of a law for the trial of criminal cases, or if you did, the proceedings had but a limited circulation, and inasmuch as at least two-thirds of the present members of the Association never heard the discussion, I am of the opinion that it would do no harm to have it over again.

Dr. GUNDRY. Would the Doctor be kind enough to change the phraseology of his resolution? I can not imagine such a thing as criminal insanity. Criminality and insanity are two opposite ideas, as I contend, and certainly can not be blended in that way.

Dr. CURWEN. There is one clause in the project of the law which the Doctor has probably overlooked. This project, as originally adopted by the Association, contained twenty-one articles. This is the clause to which I refer, "Insane persons shall not be tried for any criminal act, during the existence of their insanity and for settling this issue, one of the judges of the court, by which the party is to be tried, shall appoint a commission, consisting of not less than three, nor more than five persons, all of whom shall be physicians, and one at least, if possible, an expert in insanity who shall examine the accused, hear the evidence that may be offered touching the case, and report their proceedings to the judge, with their opinions respecting his mental condition."

That seems to cover the whole field.

Dr. CALLENDER. I concur in the propriety of Dr. Compton's suggestion. During the last winter my predecessor and I were called upon by members of the Legislature, to draw just such a law as my friend has described. I tried to compress the bill into as few sections as possible. The bill was submitted to members of the Legislature, and the Judiciary Committee chiefly. While they assented to the necessity and propriety of some such act being on the statute book, the bill which I drew, and which substantially met the clause just read, met with at least half a dozen legal objections. If the committee that Dr. Compton suggests could draft a projected law avoiding these legal objections, I think it would be very well, I think I read in the proceedings of the Legislature of Indiana that they had a bill there nearly the same as the bill I drafted. I do not know whether it was passed.

Dr. EVERTS. It was never reported from the committee.

Dr. CALLENDER. It was killed by legal objections.

Dr. RAY. I have no objections to such a committee, only I must be excused from serving on it. Before we undertake a task of this kind let us ask ourselves what conclusions we ourselves are ready to adopt? How can we instruct a court, when perhaps not half a dozen of us would agree upon any single case of insanity? When we get a nearer approach to unanimity, it will be time enough to lecture the courts, whether only certain forms of insanity, or all forms render one irresponsible; whether any medical man, or only a certain set of medical men, shall give testimony in these conclu-

sions. These are questions, to mention no others, which we should first be able to answer before we undertake to instruct courts how to try cases of insanity.

The **PRESIDENT**. Dr. Compton will perceive that it will be necessary to modify his resolution, as Dr. Ray declines to serve on that committee.

Dr. COMPTON. Yes sir, I think that a report from that committee would bring up a discussion of the whole subject of insanity in relation to law, when each member of the Association would have an opportunity to express his own views upon the various points suggested by Dr. Ray, and will perhaps enable conflicting gentlemen to come nearer together in their opinions touching these vexed questions. I do not know that we could agree upon a form of law or not, but certainly a discussion of the subject would afford the best means of testing whether we can or not. The resolution does not contemplate that the report of the committee shall be presented with our recommendation to the Legislatures; we might not approve the report ourselves. But if we can agree as to the proper form of a law, I would then be in favor of pressing it upon the attention of the makers of the laws. I have no special attachment for the form of the resolution which I hastily drew up with my pencil on the blank leaf of an asylum report, and am perfectly willing to modify it to satisfy the wishes of the most hypercritical. I simply feel that we owe it to the public, to give them the benefit of what knowledge we possess in matters in which some of us profess to be experts.

Dr. WALKER. This very law, as reported by Dr. Ray, you remember, was under discussion for at least five years. Every member had it on hand and was requested to study and ask advice upon it. When we came together, after some discussion, it was unanimously adopted. Some legal judgment was taken, but it was declared to be the only report that would be adopted by any majority. I believe it is the only one that can be adopted. If it is insufficient then the legislature must get up its own laws. I hope we will not waste our time upon it. There are other questions to which we can better devote our time. I move that the matter be laid on the table.

The motion was agreed to.

Dr. ECHEVERRIA. The question which was put by Dr. Brown has been left unanswered.

Dr. WILKIE. Chambers, who is under my care, has of late been showing unmistakable evidence of delusions. I intercepted two

letters written by him, in which he refers to two articles published in our city papers detrimental to him—no such articles having been published—at the time, breathing out threatenings towards me, saying he would be even with me, etc. I merely wanted to mention the fact.

The minutes of the meeting were read and approved.

On motion the Association adjourned to 9 A. M. to-morrow.

MORNING SESSION.

Thursday, May 29, 1873.

The Association was called to order at 9 A. M. by the President.

The Secretary read an invitation from Dr. Coskey, Resident Physician of St. Joseph's General Hospital, to visit that institution, which was accepted and referred to the Committee on Business.

Dr. Ray then read a paper on Ideal Characters of officers of Hospitals for the Insane.

On motion of Dr. Curwen, it was

Resolved, That with the consent of the author, the paper be printed at the expense of the Association, in book form, for general distribution among the members.

Dr. Callender, from the Committee on the time and place of the next meeting, reported that they had received invitations from three points: Nashville, Philadelphia and Canandaigua; that the invitation from Canandaigua had been withdrawn for the present; and they would suggest an informal ballot to determine the preferences of the members; they would also suggest the third Tuesday of May, 1874, as the time of the next meeting. On an informal ballot, Nashville, Tenn., was selected as the place of meeting, and the third Tuesday of May, 1874, as the time.

DR. CALLENDER. Permit me to thank the Association very kindly for the very complimentary vote by which the city I represent is to be honored by your presence next year.

I can hardly say, in behalf of myself, our former Superintendent residing in Nashville, the medical profession and the citizens generally of that city, that we will endeavor to make the meeting pleasant, and we would like to obtain as respectable a meeting as has been held here. There would be very little difference between the third Tuesday and the fourth Tuesday of May as to climate. Yesterday, when the thermometer indicated 83° in Baltimore it stood 75° in Nashville. On account of weather it will matter very little.

DR. KIRKBRIDE. I had proposed at this meeting of the Association to read a formal paper on the care of insane criminals. Circumstances beyond my control have prevented the completion of that paper in such a form as recent events would lead one to desire it to be prior to its presentation here. I may say, however, that I have frequently observed at our meetings that a paper was often of much less importance than the discipline which followed it. A few remarks will serve to elicit the opinion of members as well as the most important document that could be presented. It is in this way that I now propose to present the subject of the proper care of insane criminals. This subject assumed a peculiar interest in the Legislature of Pennsylvania at the last session, when a bill was introduced in the Senate, directing the Commissioners of the new Hospital at Danville to prepare one wing of that building expressly for the care of insane criminals, in reality as I felt, to make a State prison of one part of the State Hospital. Without knowing the source from which this bill emanated, I took the liberty of writing to the Chairman of the Judiciary Committee, and the Senator from the district in which I live, and asked them to take into serious consideration the character of this proposed law, and which I deemed on many accounts highly objectionable. My friends in the specialty took the same view as I did in regard to the subject, and the matter was ultimately dropped. Soon after this I received a letter from my friend, the President of the Board of State Charities, expressing great surprise that I should have made any opposition to the proposed measure. Thus unexpectedly finding myself in opposition to the views of the excellent gentlemen who compose our Board of State Charities, I could only say that this question seemed to me to have been fully settled, so far as the experience of those who were connected with institutions for

the insane was concerned. That it was only a question whether a part of a hospital should be made a prison, or a part of a prison be converted into a hospital, and that there could hardly be a question but that the latter was the proper course, when, from any cause, a State institution, specially devoted to this class of the insane, could not be provided. In common with every friend of humanity, and every hospital superintendent, I desired that the very best care should be given to convicts when they became insane; but that I could not consent that this should be done at the expense or to the injury of those who had committed no crime. The feeling of aversion and indignation expressed by patients and their friends, at such an association, can hardly be realized by those who have no personal opportunity for such observation, and there would really be little good done to the convicts, to compensate for the injury inflicted on the other patients. Having all of this convict class kept in one wing, would not materially lessen the objections to such an association, for it would be so prison-like in its appointments as to give a character to the whole institution, and association upon the grounds could hardly be prevented. We were not without experience in reference to this subject in Pennsylvania. There has been for many years a law in existence appointing a commission to examine such prison cases as may be brought before them, and whose duty it is to decide upon their insanity, leaving to the inspectors of the Penitentiary, subsequently to make such disposition of these convicts as may be declared to be insane, as they may see proper. The Commission consists of the Physician of the Pennsylvania Hospital for the Insane, the Physician of the Friend's Asylum, and the District Attorney of the city of Philadelphia. Eight such cases were sent to the State Hospital at Harrisburg at one time, all of whom, I believe escaped, and of these five were never recovered. This first experiment gave so much trouble, was so very unpopular, and it was found so difficult to keep these convicts, that the Board of Trustees declined receiving any more such cases, and in several of their reports presented strong arguments against such an association, in any hospital for the insane. I presume we will all agree that the best mode of providing for insane criminals is an institution specially devoted to this class, as has been done in Great Britain, Ireland, Canada, New York and elsewhere. If there are not enough cases in any one State to justify such a provision, a portion of the prison should be given up to those who are thus afflicted, or a structure within the prison enclosure be put up for that particular purpose.

I have no wish to detain the Association by more extended remarks. My motive in introducing the subject is mainly to ascertain, whether there is really any difference of opinion among us in regard to the proper disposition of insane criminals, or whether there is any one who thinks that it is at all admissible to have such cases placed among the patients in our ordinary State Hospitals for the insane. I should be glad if the subject could be referred to a special committee (of which I must decline being a member) who should make a report on the subject before the close of the present meeting of the Association. Since coming to Baltimore I have learned that the President of this Association has in his possession a letter from the President of the Pennsylvania Board of State Charities, asking for an expression of opinion on this whole subject, by the members of this Association. I shall now ask for the reading of that letter before any further discussion takes place, and especially as it furnishes another reason for the course I have suggested.

The letter was then read by the Secretary.

Dr. EARLE. I suppose this will be discussed.

The Association then, on motion, adjourned.

The afternoon was spent by the members in visiting the arrangements of the Spring Grove Hospital for the insane under the conduct of the Drs. Steuart.

EVENING SESSION—May 29, 1873.

The Association was called to order at 8 P. M. by the President.

Dr. RAY. I think I may possibly embody the sense of the meeting by means of a few resolutions. At any rate, they will serve as a basis for discussion.

The resolutions are as follows :

Whereas, The proper disposal of that class of the insane, whose criminal acts require their seclusion and confinement, is a matter on which this Association is requested to express an opinion.

1. *Resolved*, Therefore, as the opinion of this Association that neither jails and penitentiaries, nor ordinary hospitals for the insane are proper receptacles for this class of persons; but that they should be cared for in establishments designed expressly and solely for them.

2. *Resolved*, That under no circumstances should insane convicts be associated with other insane persons, believing that such association is not calculated to improve the condition of the latter, and that the best interests of the former require a special management and architectural arrangements of a peculiar kind, both very different from such as are adapted to the needs of other classes of the insane.

3. *Resolved*, Also, that the example of the State of New York, which has thus provided for its "criminal insane," as they are usually called, be commended for imitation by other States, either singly or collectively.

Dr. GRAY. Would Dr. Ray object to altering one or two words in the last part of the resolution, to use the words "with ordinary insane" instead of "other persons," instead of the word "convicts" use "insane criminals." The institutions organized have embraced the insane convicts, and those acquitted of murder and arson in the first degree, on the ground of insanity. I see no objection to placing these two classes together.

Dr. RAY. I wished to avoid the odium attached to the words, criminal insane, and would avoid the term by the word convicts.

Dr. GRAY. The resolution of Dr. Ray refers to the provision made in the State of New York. The separate provision for this class was proposed by my predecessor, Dr. Benedict; he proposed, however, the association of the criminal class, embracing insane convicts, then sent to Utica to mingle among the ordinary insane, with inebriates, creating an institution for these classes.

Subsequently an act was passed creating an institution for insane convicts. The law was subsequently changed to embrace insane persons who had committed or attempted homicide or arson in the first degree, and were acquitted on the ground of insanity; however, it was not made obligatory to send all to the asylum for insane criminals, but it was left to the discretion of the *Court* to send to that institution or to either of the State Asylums. Provision was also made for their transfer from the State Asylums to the Asylum for Insane Criminals, if in the judgment of a justice of the Supreme Court it might be deemed best to make such transfer. Under the operation of this law a classification can be made, and those who have committed homicide in puerperal insanity, as an accident arising from neglect of care over them, can be sent to the State Asylums and remain there. All will admit the propriety of treating the dangerous classes of insane where there are special arrangements to prevent escape. It is certainly wiser and more humane

to place together these two classes of insane, than to retain either in the ordinary hospitals and make those hospitals to a certain degree prisons. To confine the insane, who have committed these higher crimes among the ordinary insane, necessarily subjects the entire institution to unnecessary restraint for the few; furthermore it is safe to say that a large proportion of those acquitted on the ground of insanity are essentially of the criminal class.

Before the organization of the asylum for criminals, when convict insane were sent to Utica, many feigned disease to get to the Asylum and escape, and they frequently succeeded. Dr. Kirkbride has well described the objections that friends had to having convicts in association with the ordinary insane. I think it is more than a matter of sentiment, where these criminal insane shall be cared for; the question of safe custody is a matter of public interest, therefore it is a matter of propriety and expediency to place them where they are not likely to escape, and it might well be said that it is a sufficient misfortune for any one, to have to be placed in an asylum, without the additional humiliation of being confined with criminals. Then it materially adds to the responsibility of the medical, and other officers, and employés of the hospital to have the constant custodial care of a class who are constantly contriving their escape.

Several have escaped from Utica, who have never been recaptured. This whole matter was well expressed by Dr. Kirkbride that it was not proper to make a prison of an asylum, to retain a few bad characters, who happened to commit crimes in real or doubtful conditions of insanity. I can only say that the disposition of this question in New York has been satisfactory. Dr. Wilkie, the Superintendent of the Asylum for the Insane Criminals, at Auburn, N. Y., is present and could answer upon that point.

Dr. Walker objects also, to the expression of criminal insane. I think I might add that our law was carefully drawn, and was submitted to several of the judges of our highest courts, and has met with no objections by the judiciary.

Dr. RAY. Are all persons acquitted of criminal acts on the ground of insanity, sent to the criminal establishment at Auburn?

Dr. GRAY. No, as before remarked it is in the discretion of the court to send them directly, or subsequently, if desirable.

The PRESIDENT. That would include women who have killed their children.

Dr. GRAY. As a general rule it is safe to trust to courts; since the law was in operation I can recall no such case. We have had

at Utica, cases where mothers have killed their children, but the insanity was so apparent that they were not arraigned or tried but sent directly to our care as ordinary insane, the question of criminality not being raised.

Dr. RAY. I observed that Train had been ordered to be sent to Utica.

Dr. GRAY. Not as criminal.

Dr. RAY. Why should he not have been sent to Auburn?

Dr. GRAY. Train was under indictment for an offence which simply subjected him to fine and imprisonment. The law, as I have before stated, only includes those who have committed or attempted homicide, or who have committed or attempted arson in the first degree; persons held for minor offences, and adjudged insane are sent to the State Asylums unconditionally during the pleasure of the law.

Dr. GUNDRY. Are persons sent without being convicted?

Dr. GRAY. Yes, if in confinement under the criminal charge of homicide or arson, and they appear to be insane, they may be sent.

Dr. GUNDRY. Without conviction of the crime?

Dr. GRAY. Certainly, if they are adjudged insane, they can not be tried.

Dr. ECHEVERRIA. Mr. President, the language of the introductory clause presented by Dr. Ray, reads thus: "Whereas the proper disposal of that class of the insane whose criminal acts require their seclusion and confinement, is a matter on which this Association is requested to express an opinion."

The objections to this clause, as they occur to my mind, are these. The association of crime and insanity may exhibit itself in three different ways. A man may commit crime during a recognized existing state of insanity; or, after committing it in a perfectly sound mental condition, he may before trial or after conviction therefor, and while serving his sentence, become insane. Here we have the insane criminal under three aspects. In regard to the first, we are well aware that one of the fundamental reasons for the establishment of public lunatic asylums, is that lunatics may be dangerous to themselves or others, if left at large, wherefore the safety of society demands that they should be confined and kept out of mischief.

The dangerous impulsive acts of lunatics do not differ in themselves from deeds of criminality, but carry with them irresponsibility because of their being results of disease. A man in high position of life attempts to burn his neighbor's house, or murder

his brother; the family recognizing that he does it in a fit of insanity, at once summons a physician, and on proper commitment this maniac is taken to a private or public lunatic asylum, without any embarrassment to the proceedings. A poor friendless maniac in his wanderings through a village sets fire to a barn, or perpetrates a murderous assault on a passer-by; he is caught in the act, indicted and tried swiftly, to be either declared guilty or insane, and if the latter, sent to a criminal lunatic asylum. Now then, where is the difference between these two men?

Why should the first be, without impediment, removed to any ordinary insane hospital, and the second, if he escapes a felon's sentence, to a criminal lunatic asylum? Is there the least difference between them? should we as alienists declare a distinction between two lunatics who have been victims of identical impulsive acts?

Concerning those who become insane after the perpetration of crime, I fully concur with the views of the Association, they should be placed in a special institution for convict lunatics. The disposition of criminal lunatics, after their return to a state of sanity, is a very momentous subject, on which I only intend to hear the views of the Association, after passing a brief remark. There are criminal lunatics, such as those under the head of puerperal mania, for example, that might be safely discharged upon sufficient evidence of their complete recovery. On general principles, however, I firmly believe that cases of homicidal mania, whether related to epilepsy or any other form of insanity—for they are all the same—should never be allowed unrestrained freedom to go at large, even though they might seem to have recovered their intellectual faculties. It strikes me that in this respect the English law vesting the power of discharge in the supreme authority, or the mercy of the crown, is perhaps the wisest. Such homicidal lunatics should never be set free on the community; for the relapse of their mania as we too well know, is of most frequent occurrence, or almost a rule. I hope I do not dissent in this opinion, from the unanimous feeling of the Association.

Dr. GRAY. The criminal class are released under the law in operation in New York, by a justice of the Supreme Court, who shall, upon due investigation, find that it is safe, legal and right to grant the discharge.

Dr. ECHEVERRIA. Is there not a writ of habeas corpus?

Dr. GRAY. The writ of habeas corpus can not be taken out in a case of the criminal insane. This question was recently decided by Judge Leonard of New York, in the case of Burns, who was

acquitted of murder, on the ground of insanity, and sent to Utica.* Howe and Hummel, lawyers, who had defended him, secured the issue of a writ of habeas corpus soon after his admission, upon the ground that he was not insane, and Burns was taken before Judge Leonard, and the case argued for the people by Ex-judge W. J. Bacon. Burns was remanded upon the ground that the statute clearly expressed the nature of the proceeding, to be taken for the discharge of that class, and that a habeas corpus could not be entertained in such a case in face of the statute. He was subsequently transferred to Auburn.

*The following is the opinion of Judge Leonard.

IN THE MATTER OF }
JAMES BURNS. }

Leonard, J. The prisoner was acquitted of murder in the first degree, on an indictment and trial therefor in the Court of General Sessions in the City of New York, in July last, on the ground of insanity. Such appears to have been the verdict of the Jury. That Court thereupon ordered the prisoner to be detained in safe custody and sent to the State Lunatic Asylum at Utica, where the Sheriff was directed forthwith to convey him, and it was further directed that the prisoner be there detained in safe custody, until discharged according to Law.

It is alleged that he has now become sane, and the prisoner applies for his discharge from custody upon a writ of habeas corpus.

The question of his sanity is not raised either on behalf of the People, or the Superintendent of the Asylum, the Judgment and process or Order of the Court being the only ground on which the right of detention is claimed.

The question is new, and must be disposed of principally by a reference to the Statutes.

The Asylum was organized, and the authority to receive and detain criminals was given by an Act of the Legislature passed in 1842, to be found in the Revised Statutes, Edmonds Ed., Vol. 4, p. 18.

It is provided by Sec. 31, p. 25, that a person acquitted of a criminal charge upon trial, on the ground of insanity, the Court being certified of the fact by the Jury or otherwise, shall ascertain if his insanity continue in any degree, and if it does, shall order him in safe custody, and to be sent to the Asylum.

Section 32 contains provisions for sending to the Asylum other persons under indictment or sentence on a criminal charge, &c., or committed for want of bail, &c., or for keeping the peace, or appearing as a witness, or on a summary conviction, &c. This section also contains provision for the discharge of persons imprisoned, under this section.

By Sec. 40, the powers of the Chancellor over the person and property of the insane, are declared not to have been abridged by the said Act.

By Sec. 41, the power of the Managers of the Asylum to discharge patients on the Certificate of the Superintendent, of a complete recovery, is given, but the case of those detained under a criminal charge or liable to be remanded to prison, is expressly excepted.

Dr. SHURTLEFF. I wish to join with other members of the Association in expressing, from my own experience in California, my condemnation of the practice of keeping insane convicts in our ordinary asylums for the insane. I need not say to you, who have had a similar experience, that they are generally offensive to the other patients who feel degraded by a forced association, with this class. With us, perhaps, fortunately for the other inmates, but unfortunately for society, the asylum is soon relieved from a good proportion of the patients sent from the State prison, especially the burglars who too easily make their escape. I am speaking only of insane convicts, and do not apply the objection to insane persons who, while insane, commit such acts as are by statute made felonies if done by a responsible being.

The discharge of patients of the criminal class, (to which Burns belongs) is, by Sec. 42, authorized by order of a Justice of the Supreme Court "if upon due investigation it shall appear safe, legal and right to make such order."

The office of the writ of habeas corpus is for the purpose of enquiring into the cause of the detention of any person, and, if it appears to be illegal, of granting a discharge.

Ordinarily, the regularity of the process of commitment terminates all further enquiry, and the prisoner is to be remanded into custody. The Court can not, on habeas corpus, enquire into the justice of the sentence or judgment. That has been pronounced by another tribunal which can be reviewed only in some other manner by a higher Court, but not upon habeas corpus.

It is entirely clear that the judgment and process, in the case of Burns, are regular and sufficient. The general habeas corpus act provides that a prisoner confined on a judgment or sentence of a Court of competent jurisdiction is not entitled to that writ. The prisoner must show preliminarily that he is not so confined, when he applies for the writ.

From this examination it appears that Burns was not entitled to the writ; and that when it was stated in the petition for the writ in this case, that he was not confined upon the judgment of a competent Court, the petitioner was at last mistaken.

It is probable that the equitable powers of the Supreme Court, where the jurisdiction belonging to the Chancellor at the time the Statute in question was passed in 1842, now resides and is vested, might in a proper case be invoked by petition. These powers are expressly reserved by Section 40.

The power may also be exercised by a Justice of the Supreme Court under Section 42.

This should be done also under petition and not by the writ of habeas corpus.

The regularity of the judgment and commitment fully answer the claim to a discharge under the power granted by virtue of that process.

The writ must be discharged and the prisoner remanded to the Asylum from whence he has been brought here.

The first of these resolutions appears to me to be of too extensive application, to embrace the latter class. Suppose, for instance, a lady of good family and social position, impelled solely by a morbid propensity, while attending to her shopping duties, should steal and carry away from a store, sufficient value to make the act grand larceny, and upon investigation she is found to have been insane at the time; or take a case I have under my charge of a kind husband, who in a paroxysm of violent mania, unconsciously killed his wife, and has remained insane ever since—a law requiring such persons to be committed to asylums for the criminal insane, it seems to me, would be unjust.

Dr. KIRKBRIDE. Is there not a contradiction in stating that an insane person who is impelled by that disease, to commit the acts mentioned, has committed crime at all? Can any person who is not self-controlled be criminal, particularly when impelled by disease of the brain?

Dr. SHURTLEFF. Certainly such a person is not a criminal; that is why I am opposed to the first of these resolutions. I do not say the parties were criminal in the cases instanced. The adjective *criminal* is often used in reference to the character of the act alone, and does not always imply guilt in the actor. The terms "criminal insane," and "criminal lunatics," are conventional terms applied to a certain class of insane offenders, such as homicides, whom the law does not convict of crime, on account of their irresponsibility. If I understand it, the first resolution includes this class; and wrongfully, I think. In regard to insane convicts, I have long been practically convinced that their care should not in any way be connected with our hospitals for the insane. I fully coincide with Dr. Kirkbride in his original verbal proposition, which seems to me to be rather more than covered by the resolutions of Dr. Ray.

Dr. SHEW. What few remarks I have to make will be based upon the assumption or belief, that the resolutions refer to insane criminals—insane convicts—those who are insane and in penitentiaries and prisons. With that view of the case, I heartily concur in the resolutions from beginning to end. If they refer to persons who commit acts which would be considered criminal were they not insane, I can not concur in all the resolutions. Many of the patients received in our hospitals commit those acts, and are sent to the hospital, because they are dangerous to society—dangerous as insane persons. It seems to me that there can be but one opinion, and that is, that insane criminals should be separated entirely

from patients in hospitals. First, because of the dangerous influence upon other patients: secondly, because of the odium which it brings upon the institution, and the unpleasant feeling which the friends of other patients have in supposing or believing, that their loved ones are associating daily and hourly with criminal persons.

In practical experience I have not found that insane convicts are particularly objectionable in themselves—not as much so as Dr. Shurtleff and Dr. Curwen have. Three years ago, the Legislature of Connecticut passed a law requiring the trustees of the hospital at Middletown, to receive all insane convicts after a proper examination, which was specified, and a commission appointed. We had no separate provision and were obliged to receive them in the hospital proper, and place them in association with the other patients. Since that time, twelve insane convicts have been transferred from Wethersfield to Middletown; two of that number have escaped; one of them feigned insanity; arrangements had been made to transfer him to Wethersfield, but he escaped the very night before the transfer was to be made. Of the ten others, seven have been among the most valuable farm laborers, harmless, industrious and peaceable, and yet positively insane, much less dangerous than many of the chronic patients. One of the number has been very valuable the past few years, in sharpening the tools used by the stone-cutters in the erection of the two wings, saving the cost of one skilled mechanic. It was his trade and occupation before being sent to prison. None of the seven who have been employed ever attempted to escape. They are generally liked by the patients, and are not more troublesome than others. The friends of the patients object to the association; and in my report last year, I called the attention of the Legislature to that fact, and asked that an appropriation be made for a separate building, distinct from the main hospital; a cottage simply, to provide for the insane convicts. No appropriation was made; but a resolution was passed authorizing the trustees of Middletown hospital to use the unexpended balance of a former appropriation for the erection of such a building, and during the present year we hope to have a building for the accommodation of twenty persons, in which we will provide for all the insane convicts. We now have seven of that class. There have been only three transferred from Wethersfield each year. In a State as large as that of New York or Massachusetts, or in others that could be named, I should think it would be better to have a building for the insane, in connection with the prison, as at Auburn, where it is situated near the prison proper.

Dr. KIRKBRIDE. You would prefer that very much?

Dr. SHEW. I would prefer that, sir, but in smaller States, like Connecticut, if no other arrangement could be made, I should suggest the plan adopted at Middletown, having a separate building under the same management, but everything entirely distinct.

Dr. GRAY. Have you any insane criminals in alms-houses in Connecticut?

Dr. SHEW. There were two brought to us from jails. There are none such now. We have made provision for all the insane poor.

Dr. CURWEN. Do you recollect the crime for which they were sentenced to the penitentiary?

Dr. SHEW. Three of them were for murder, or manslaughter. One of them had been insane for almost twenty years. Another committed murder in 1870, and exhibited evidences of insanity about one year afterwards. While in prison he was a quiet man and labored steadily. His insanity was melancholia. He has improved at Middletown, and is in a fair way of recovery. There is a law directing the courts to send all persons, acquitted on the ground of insanity, to the Hospital at Middletown. Under the provisions of that law, twelve persons have been sent to us during the past year, nearly all, however, for minor offences. That law seems to please the courts very well.

Dr. GRAY. How many of the twelve committed murder?

Dr. SHEW. One.

Dr. KIRKBRIDE. I should like to ask Dr. Shew's opinion in reference to making provision for insane convicts in connection with a penitentiary, whether he does not think it desirable that the only class to which I made any allusion in my remarks, ought to have a separate building for their accommodation; or have a separate department of the prison, instead of a separate part of a hospital?

Dr. SHEW. That would be my first choice. The only objection I have to this plan is in the fact that there is no medical superintendent or skilled medical officer to supervise.

Dr. KIRKBRIDE. Our prisons have medical officers, who are perfectly competent to treat those cases. In my experience they are largely chronic cases, to whom we give very little else than moral treatment.

Dr. SHEW. I can see no other objection to having arrangements made in connection with a prison.

Dr. KIRKBRIDE. I merely want to know your preference in case we have to do one or the other.

Dr. CALLENDER. Mr. President, I have no extended remarks to

make upon this subject, and what I may say, will perhaps be a repetition of what fell from Dr. Kirkbride. As I intimated in a remark I made a few days since, I have had some ugly experience with convicts sent from the State prison to my hospital, having had six at one time. I always felt that they were a blot upon the house, and the patients felt that they were degraded by associating with convicts who were sent there as such, and I was obliged to hold them as persons confined, absolutely confined and secluded. They were sent out with our attendants at proper times by themselves for exercise. I never thought of this condition of things, that I did not feel I had been imposed upon by the State authorities, and that the friends of the patients had just cause for complaint. I appealed to the Governor for redress. I finally drew the attention of the Legislature to the matter; it did not perfect the legislation proposed, but such was the feeling evinced that I took the responsibility of sending them away. I propose to vote for the resolutions as they stand, if I understand them properly, and I think I do. I hesitate very much to even seem to criticise anything that affects criminal jurisprudence, but this preamble, if it read in this way, would embody what Dr. Kirkbride referred to this morning. The term felon is a legal term.

“*Whereas*, the proper disposition of convict felons who have become insane after their penal confinement is a matter upon which this Association is asked to express its opinion,” I do not suggest it as an amendment. The matter is, that neither jails nor penitentiaries nor hospitals for the insane, are proper places for these persons. I believe that anywhere on the hospital grounds, or where persons are confined who are insane, no criminal insane should be kept, that it tends to the demoralization of the attendants, and of all the employés of the household, and I heartily acquiesce in the pressing necessity of having nothing of the kind near the unfortunate insane. The criminal insane should be placed in a separate asylum, as at Auburn, or in hospitals attached to prisons or in apartments of these buildings.

Dr. GREEN. I would suggest to my friend Dr. Callender, that the change which he proposes in the preamble is not quite satisfactory to me. You may recollect that the law prescribes certain crimes only as felony. There may be many crimes committed in the category not felony according to law.

Dr. CALLENDER. There are misdemeanors and felony.

Dr. GREEN. There are many forms of larceny and breach of

trust which the law does not denominate felony and which unquestionably are crimes.

My experience in regard to this matter has been very much the same as that of Dr. Shew, except I have been much more fortunate in reference to the number of those persons imposed upon me. In the twenty-seven and a half years I have had charge of that institution I am quite sure we have not had more than twenty persons of the kind referred to, in that asylum; and a large proportion were persons acquitted, upon indictments for various crimes, on the ground of insanity. A small number were sent from the penitentiary. Numerous instances have occurred in which inmates of the penitentiary feigned insanity with a view to get to the asylum, and have an opportunity to escape. I have been called in, I suppose, in twenty instances. Two of the number were insane. One of these persons whom I thought feigned insanity, was sent to me and sent back in forty-eight hours. I have had very few of these people, and many were persons who were never convicted of crime, but were acquitted, as I have already stated, upon the ground of insanity and of being insane at the time of the commission of the act. I have not met with complaint on the part of my patients or the friends. It has been my practice, when they were sent from the penitentiary, and they are usually of a low class of people, to put them with the lowest class of patients in the institution, and they are of a class that care little about their associates. These persons have assisted about the place and have made no effort to escape.

Upon the subject of the main point in the case, the judgment of the Association in reference to the propriety of a separate establishment, entirely for insane convicts, parties who become insane subsequent to their commission of crime, I do not think there can be a dissenting opinion in this Association. I think with my friend Dr. Callender, that there should be no connection direct or immediate with the asylum for the insane, but that they should be placed in a separate asylum, or one as an appendage to the state prison.

Dr. EVERTS. I rise only for the purpose of expressing myself in favor of the resolutions. It is a subject on which I have earnest feeling and deep convictions. I believe the resolution should be carried, and I hope the vote will be unanimous in the affirmative.

Dr. Gundry moved to amend the resolutions by striking out the second resolution and placing the first after

the third, in order to bring discussion to the one point embodied therein, the disposal of convicts who while undergoing sentence, become insane.

The amendment was withdrawn for the present at the suggestion of the President.

Dr. WIGGINGTON. If I understand the resolutions of Dr. Ray correctly, he refers *especially*, or more particularly, to the insane criminal, or that form of insanity which develops itself after the commission of crime. I would cheerfully concur in the adoption of resolutions to the end, that this class of the insane should be provided for in an entirely separate institution.

As I could not hear distinctly the resolutions of Dr. Ray, I will state, on my own responsibility, that we may for convenience divide the insane into three classes, viz.: (1) the common or ordinary insane; (2) the class that commits crime, or acts of violence, but who are subsequently proven to have been insane when the acts were committed; and (3) the insane criminal.

I will further state that in Wisconsin, there is no separate provision for the third class that is referred to; that is, a class where insanity develops itself subsequently to the criminal act. We are obliged, (after the investigation or inquiry, to decide upon their insanity,) to receive them into our hospitals for treatment. We have on several occasions had very difficult and unpleasant cases to treat in this way. One case, about the year 1864, was that of a man named John Enright, who had committed murder. He was sentenced, I think, to ten years' imprisonment. A few months after imprisonment, insanity was developed. He was placed in our hospital for treatment; and after he had been there some time, we discovered that his insanity was cured. After recovery he appeared anxious to remain in the asylum until his term of imprisonment had expired, or until he could escape. Our hospital, similar to others, is so constructed that we can not prevent patients from escaping if they see fit; only a thin door, fastened by an uncomplicated lock, separating them from the outer world. He made his escape by picking the lock, and we have not since heard of him, except through his friends, who informed me that he is perfectly cured, and is now somewhere on the Pacific Coast.

Furthermore, many of our patients, as they become convalescent, object to coming in contact with these criminals. One fine old gentleman, while convalescent, objected to remaining in the ward with Enright. One day he was asked why he did not

take his customary walk. He replied, "John Enright walks on that road; he has been with us too long, and it is a perfect outrage." I simply state this to show the unpleasant relation between these two classes of insane, when associated together. I would very much prefer this class of insanity to be in an entirely separate institution, a separate superintendent, separate buildings and separate grounds.

Dr. LANDOR. I so cordially concur with Dr. Ray's resolutions that I am quite prepared to vote for them at once. In my own province we have an asylum, for the express purpose of accommodating convicts from the penitentiary, if they become insane. Unfortunately, the necessity of the community, and the want of places for our insane, have compelled the government to confine there a number of the ordinary insane; they are in the same building, although not in the same part of the building with the convict insane. I certainly favor the resolutions as they stand.

Dr. R. S. STEUART. We have but seldom received this class of persons from the penitentiary, not one in forty-five years. In a few instances, persons on trial not yet "judged" have been sent to us as feigning insanity, but soon evinced the real nature of their cases, forming ingenious plans of escape. In all such cases, I am decidedly of opinion, that especial provision should be made for the really insane and the pretenders to insanity, and I hope the influence of the Association will be exercised in establishing this opinion over our legislative bodies.

Dr. KUNTZ. So far as my knowledge extends, there are no provisions existing in the State of West Virginia, in regard to the removal of insane convicts to the hospital. If the resolutions of Dr. Ray apply to criminal insane, I heartily give my assent to them; but if they apply to those persons who commit criminal acts after insanity, then I am opposed to them. My idea in regard to the class of insane convicts is, to have a department in connection with the penitentiary.

Dr. COMPTON. If I lived in Pennsylvania as Dr. Kirkbride and Dr. Curwen do, I think, sir, I would approve the spirit of the resolutions. At any rate I would approve the position taken by Dr. Kirkbride in his verbal statement this morning. I think the resolutions cover more scope than Dr. Kirkbride intended. One of these resolutions commends to the people of the States, the example of New York. Dr. Gray has told us what the example of New York is. It covers all the cases of insanity with which the law has to deal; that is the insane convict, and the person acquit-

ted on the ground of insanity. I think I could approve the resolutions if they were limited to the one point. If I lived in Pennsylvania or any other State large enough to furnish a sufficient number of criminal insane, to justify the erection of a separate building, I would favor such action. In Mississippi and in a majority of the States, we do not have enough insane criminals to justify us in putting up a separate building. My own experience with insane criminals leads me to feel rather charitable towards them. I have had only three; and there have been circumstances connected with each of those cases, which lead me to think they were insane before committing the crime. After conviction, their insanity became apparent. One has recovered. Two are there now, and one of them has been there a long time.

The third resolution, I think, I would amend, because that condemns the action of my own State in this matter. It declares that "under no circumstances should insane convicts be permitted to associate with insane persons, believing such association is not calculated to benefit the insane, &c." I would be very decidedly against the first part of the resolution, that "under no circumstances should they be associated." I would take them into my asylum, rather than let them remain in the penitentiary or jail. In the absence of the proper provision, I would take them out of the penitentiary and jails, and put them into my asylum. I would rather have the resolution amended, so as to strike out "under no circumstances."

Dr. EARLE. I would put the convict insane in a separate institution independent of all other institutions. I would put in the same place those who have been tried for crime, and acquitted on the ground of insanity: then those incendiary and homicidal patients who never had been tried for crime. I would make the provision that they should be removed to that institution, but not unless it was decided by the superintendent of the hospital, the trustees of the hospital, and the Board of State Charities or its agents; all these authorities must concur before a man who had committed a criminal act and had not been convicted of crime, should be removed from the common hospital to this institution. This applied only to the incendiary and homicidal class because our most dangerous patients are not convicts, and have never been tried for crime and acquitted on the ground of insanity. I entirely concur in the resolutions of Dr. Ray.

On motion of Dr. Curwen, the further consideration of the subject was postponed until to-morrow morning, and the Association adjourned to 9 A. M.

FOURTH DAY.—MORNING SESSION.

May 30, 1873.

The Association was called to order at 7 1-2 A. M. by the President.

Dr. GUNDRY. Mr. President, I offered an amendment last evening which will show exactly what I wish to say before the Association. It is simply a transposition, leaving out a part of Dr. Ray's resolutions, and would read in this way :

"*Whereas*, the proper disposition of that class of the insane, whose criminal acts require their confinement, is a matter upon which this Association is asked to express its opinion, therefore,

Resolved, that under no circumstances should insane convicts be associated with other insane persons, believing that such association is not calculated to improve the condition of the latter, and that the best interests of the former require a special management and achitectural arrangement of a peculiar kind, both very different from such as are adapted to the needs of other classes of the insane, and, therefore, as the opinion of the Association, that neither jails and penitentiaries nor ordinary hospitals for the insane are proper receptacles for this class of persons, but they should be cared for in establishments designed expressly and solely for them."

And then my amendment contemplated the omission of the endorsement of the course of the State of New York. If you notice, I simply refer in my amendment to insane convicts. There is a class of persons whose position has been defined by law, as persons taken from society by crime. They require proper treatment, but they should not be treated with other persons who have been insane without previously committing crime. I think, therefore, that hospitals should be erected for them, having certain architectural arrangements for their safe keeping, which are felt to be unnecessary in other institutions. That hospital may be where you please to put it. It may be upon the grounds of the penitentiary; that should be determined by the circumstances. It is not always what is best, but I think we should be slow to commit ourselves upon matters of expediency. I take it that the prin-

ciples upon which we all agree are these; that insanity is not crime; that acts done by insane people are acts of insanity, that all their acts are to be considered, wherein they differ from proper acts, as flowing out of their diseased condition. I can not subscribe to particular symptoms of disease as crimes. In endorsing the action of the State of New York, we go further than my amendment would contemplate, because we endorse this course. They have done very well in providing a hospital for insane convicts, but with those insane convicts they send persons, who are compelled to mingle with them, whose acts of violence were committed in their diseased condition. It is urged that this is a matter of expediency, because the hospitals are not able to contain them for various reasons. If the hospitals are not properly constituted, make them so. If special arrangements are required for violent patients, have those special arrangements made. But when we say that the act of one man shall be tolerated, and another proscribed, all flowing out of disease, I think we depart from our position, namely, that when the act is the result of the disease, the party is irresponsible. We instruct against all other positions than that the crime was the result of disease.

Now then, how can we go back upon our action by endorsing the course of the State of New York? We must always bear in mind that criminals are not insane, and should not mingle with the insane; for insane are not criminals, and should not mingle with criminals. I do not mean to join in a wholesale denunciation of convicts. I do not mean to say that persons convicted of crimes are so much worse than other men; the difference is slight. Their condition is determined by law, they are set aside as persons marked with crime, and it adds very much to the apprehensions of poor, honest people, who fear that, in after life, through the influence of disease, they may have to pass their latter days in hospitals, and there mingle with persons who have degraded themselves by their course of life. We must always be careful to remove any taints of crime from our institutions, and I think every step that brings crime and insanity together, helps to endanger the cause for which we are striving. I think that is the great trouble where boards of charity exist. Gentlemen who compose Boards of State Charities are all excellent men, nevertheless the effect of that system, is, to my mind retrogressive, and ought not to be countenanced by any action of this society.

Therefore when my friend endorsed in a quasi-manner, the action of the Board of State Charities I can not approve. It has been

their habit to consider that they owe it to the people to build cheap things instead of proper buildings, and to place invidious distinction between the poor and the rich. Massachusetts being prominent, has been followed by other States, and in as far as she has been followed, she has been leading us back into paths from which we had been striving to stray. I hope the majority of the members will agree with me, and sanction the principle which seeks to establish that insane persons should not be placed with convicts in any way, and that convicts, as such, shall not be allowed to mingle with other insane persons.

Dr. GRAY. Is a man a convict after he has served out the sentence of the law?

Dr. GUNDRY. No.

Dr. GRAY. What would the gentleman do with such convicts whose terms of sentence have expired?

Dr. GUNDRY. His sentence is suspended, and he remains a convict so long as he is insane.

Dr. GRAY. No, the sentence must expire?

Dr. GUNDRY. Certainly, as I understand the law,—and I take it that it is so everywhere, whether common law, or canon law,—a man insane is civilly dead, and as long as he is dead, his sentence is suspended.

Dr. GRAY. In the Asylum to which reference has been made,—I will not say it is a convict asylum, for it is not, it is an asylum for insane persons—in a majority of cases the term of sentence has expired, and they are no longer amenable as criminals.

Dr. T. R. H. SMITH. I have but few additional remarks to make. There is doubtless entire unanimity with this Association on the main question, that insane convicts should not be sent to State hospitals for the insane. In the reports of a large majority of our State institutions, the important bearing of this subject upon the best interests of the insane has been dwelt upon and enforced. In one of my reports, some years ago, I called attention to it, and presented, as I believed, the grave and dangerous results of convicts from State prisons associating with our (as some one has remarked) “respectable” insane.

The very thought of our fathers, mothers, wives, daughters, sons, brothers and sisters, whose lives have been exemplary, and above reproach, who have been so unfortunate as to become the victims of the saddest form of human affliction, associating with insane convicts, who have committed, in many instances, crimes of the greatest enormity, is most revolting to every sensitive mind.

When in health such associations would be shocking to the best feelings and impulses of every respectable citizen, and universally regarded contaminating and a disgrace; and why, when our nearest and dearest friends are the subjects of a malady, which, we all concede, render them the most helpless and dependent of our race, should we force upon them these associations which might prove the means of hurrying some to premature graves, and chiefly instrumental in fastening the disease upon others, and blighting all hope of restoration.

. Such results as these certainly impose a very grave responsibility upon all controlling this class of the insane.

I hesitate to object to anything before this Association, from our distinguished member, Dr. Ray; it has so rarely happened that his views upon any subject, have not been indorsed by all; I very much fear any objection on my part, may result from want of proper reflection. I will venture however to say, that the term "criminal insane" used in the preamble of his resolutions, would not convey the same idea to all intelligent minds. With Dr. Ray's explanation no one would object, but without it, many might conclude, as one of the members of this Association did, that the term "criminal insane" implies, that a certain class of the insane commit crime, or that we might include in this class homicidal cases of insanity, &c. Allow me to ask, would all infer from this term, that we mean only those whose insanity has followed the commission and conviction of crime, or insane convicts in State prisons, jails, &c.? I believe the members of this Association, without exception, take the position that acts, criminal, on the part of the sane, would not be so regarded, if committed by the insane, because unable to control their actions under the influence of delusions or hallucinations, no legal responsibility would attach, and hence could not be guilty of crime.

I hope, therefore, in defining our position upon this subject, we will use the term "insane convicts" or some other that will convey the same idea to all minds of ordinary intelligence.

I must also object, to that part of one of the resolutions which endorses the New York law. Those conversant with this law, inform us one of its provisions requires that all acquitted on the ground of insanity, shall, in the discretion of the judge, be sent to the same institution, designed for convicts. Such a provision as this I can not endorse. If acquitted on the ground of insanity, they are not guilty of any crime, and no greater reason why they should be made to associate with convicts than any other class of

the insane. This law, as I understand, does not apply alone to cases of homicide, but to crime in the general sense of the term, and leaves the disposition of this class of cases entirely to the discretion of the judge—too great a sweep of power for one man.

Endorsing this law would be equivalent to endorsing the punishment of the insane because of the acquittal of crime, the penalty consigning them to a position most repulsive to their feelings and those of friends, and one that would not only retard but often prevent recovery. We have patients in our institution, who, prior to admission, committed terrible deeds, and no doubt there are such in most hospitals for the insane. We have fathers who killed their wives and children, and a mother who killed her husband, all under the influence of delusions in regard to different members of their families. These patients have been as orderly, quiet and pleasant as any in our building; have shown no tendency to violence, and exerted no injurious influence upon others.

Epileptics as a class, I have always regarded as our most dangerous patients. We have a specific law governing the discharge of all patients who committed homicide previous to admission, and I suppose there is a similar law in many other States. With a proper restriction of this kind, it certainly accords with justice and humanity that this class of cases should enjoy all the advantages of our best institutions.

In conclusion allow me to say, I have long thought the best disposition that could be made of insane convicts, at least for many years to come, would be the erection of separate apartments for their accommodation in connection with our State prisons, and, as far as practicable, with such architectural arrangements as would be essential to humane and successful treatment. It is well known that the number of insane convicts in a large majority of our States is too small to justify separate institutions for this class, as has been suggested, and if we wait for these or a union of States to erect one, in all probability the same revolting and dangerous associations will continue long even after our successors have "ceased from their labors."

Some member may have an amendment or substitute, that would fully meet all the indications, and if so, I would with great pleasure sustain it.

Dr. WALKER. The subject presented to the Association by Dr. Kirkbride last evening, was the proper disposition to be made of insane convicts, and from that has branched this wide discussion in regard to other branches of the insane. I hope whatever reso-

lutions are offered and adopted by the Association, there will be one dealing only with the question as presented by Dr. Kirkbride, the disposition to be made of insane convicts. My feeling is that they should be provided for entirely away from all other classes of the insane. A few weeks ago, I understand, the Superintendent of the State Hospital of Massachusetts memorialized a committee of the Legislature for the purpose of inducing them to recommend that provision be made in the new State prison, now being erected in Massachusetts, for insane convicts. Without knowing that fact and without conversing with other superintendents at all, I went to the commissioners appointed to erect the new State prison, and urged upon them, in connection with the hospital for the sick to be connected with that institution, that they should provide for insane convicts in it. The prospect now is that that will be done, and that Massachusetts will have the care of these convicts in connection with the convicts themselves, and all under the control of the prison physician. I can not, with my present views and feelings, vote for any measure proposing to place in communication with this class of the insane, those who, through disease or misfortune, have committed acts of violence and who must of necessity be restrained on that account.

Dr. EARLE. Under the circumstances I feel it to be my duty to offer these resolutions, as a substitute for all that have been offered. This comes right to the point, as I think, in the preamble.

Whereas, the President of the Board of Public Charities of Pennsylvania has requested that this Association should express its opinion in regard to the proper disposition of insane convicts, therefore,

Resolved, 1. That neither the cells of penitentiaries and jails, nor the wards of ordinary hospitals for the insane, are proper places for the custody and treatment of this class of the insane.

2. That when the number of this class in any State (or in any two or more adjoining States which will unite in the project) is sufficient to justify such a course, these cases should be placed in a hospital specially provided for the insane; and that until this can be done they should be treated in a hospital connected with some prison, and not in the wards or in separate buildings upon any part of the grounds of an ordinary hospital for the insane.

Dr. GREEN. I move the adoption of the whole. I think it will meet the views of the whole Association.

Dr. KIRKBRIDE. I am free to say, as I introduced the subject, that that is entirely satisfactory to me, if it meets the views of the

Association, better than the original resolution offered. I do not see that any person can take exception to them.

Dr. RAY. The discussion which followed the introduction of the letter from the President of the Board of Public Charities, although a very interesting and instructive one, wandered very far, I think, from the original purpose for which the discussion began. A few weeks or months ago a movement was made in the State of Pennsylvania, to place the insane convicts, at that time in the jails and penitentiaries of the State, in the hospital for the insane now in course of construction at Danville. That measure was defeated, principally, I suppose, by the efforts of certain members of this Association; whereupon, Mr. Harrison writes to this Association a letter, the statement of which, and many of the facts, our associate, Dr. Kirkbride, saw fit to controvert, as he did very properly. The writer asked for an opinion upon this subject, and as it was necessary to have some basis for a discussion, at the suggestion of others, I proposed these resolutions. Bear in mind that it was intended to enter the penitentiaries, take the insane therefrom and thrust them into hospitals for the insane. The resolutions were prepared to meet that project, and no other. The discussion has shown, although there may be disagreement on some minor points, that on the main points there is a substantial agreement.

We all agree that there ought to be asylums for those who become insane in penitentiaries. I take it that there is no doubt about that. Then comes up the question of the disposal of those who, whether in penitentiaries already or not, have been guilty of criminal acts while laboring under insanity. In regard to most cases to which the resolutions would apply, there can be here, little difference of opinion, but in a few cases many of us would hesitate as to their proper disposition. It is often a mere matter of accident whether the madman succeeds or fails in committing the criminal acts which he attempts, and consequently is sent by common consent, to a hospital, or is arrested and tried. Now in nine-tenths of such cases, perhaps in a larger proportion, the law already provides sufficiently, without our interference or trouble. In New England, and some other States, these cases take the proper course, under the present common law arrangements. Where a homicide is manifestly an act of insanity, the coroner's inquest usually so decides, and nothing more is done. The person is not even arrested. His friends are allowed to take him into custody and to place him generally in a hospital for the insane. These persons are not bad or disagreeable subjects. The sense of the community

is not outraged by this disposal of them, no one hears of it with any shock or shudder, or is disposed to censure their friends. There may be some cases where doubt may exist, and where they are brought to trial and acquitted on the ground of insanity, some embarrassment may arise as to their proper disposal. Now it must be borne in mind, which seems to have been forgotten in this discussion, that to meet these exceptional cases it was proposed to use the Danville Hospital.

When you have got your proper asylum for convicts it will be time enough to decide by law as to the proper persons to be admitted. I am not prepared to state at present, who should, or who should not, be admitted.

I conceive that the difficulty may be obviated by some such enactment as this: That persons acquitted of a criminal act on the ground of insanity, should be placed in the hospital for the insane, and the moment the superintendent considers him a fit subject for the asylum for convicts, he should be sent there. The superintendent would be the best judge as to their final disposal, whether they should be retained, or sent to the convict asylum. I should no more think of sending some such persons to the asylum for convicts, than the friends of Mary Lamb did. I think that when these asylums are once established, the proper arrangements will follow.

DR. STRIBLING. I rise simply to express my decided preference for the substitute to the original resolutions. They express fully and thoroughly my sentiments at present.

DR. RAY. I have no objection to the substitute offered by Dr. Earle, I think it is going into the minutiae of the matter a little more deeply than we need to, and is prescribing a law which may need modification. For my part I should rather leave it open, but I have no further objections.

DR. GUNDRY. I do not see that the amendment differs from the amendment I proposed, except in one thing. There is a quasi-endorsement that the hospital jail is a good thing; I say it is not a good thing. It may be the best thing under the circumstances. With that exception I am willing to vote, but I do not think we ought to put ourselves upon the record in regard to the matter.

The substitute of Dr. Earle, was unanimously adopted.

On motion of Dr. Kirkbride, it was

Resolved, That the President be instructed to forward a copy of

the resolutions just passed to the President of the Board of State Charities of Pennsylvania.

Dr. Gray then read a poem entitled, "The Dream of the Master."

Dr. Landor called attention to the interchange of photographs.

On motion of Dr. Kirkbride, it was

Resolved, That the paper of Dr. Ray be stereotyped at the expense of the Association.

Dr. Gundry moved, that the Secretary be requested to extend an invitation to the Board of Public Charities of the different States to attend the meetings of this Association, which was, on motion of Dr. Walker, laid on the table.

Dr. Gray brought to the notice of the Association a letter of Dr. Wilbur, relating to the neglect of the Secretary, to send him an invitation to attend this meeting of the Association.

Dr. R. S. STEUART. I want to call your attention to a subject of interest to all insane institutions; one that is likely to become more so. You are all aware, gentlemen, of the excitement that has existed from time to time in consequence of certain occurrences which have been published in the newspapers, in different parts of this country, relating to the treatment of some patients in certain hospitals, and we all know that the abuse of our institutions is a chronic disease, breaking out with more or less vehemence from time to time in every locality. In this section it has for the last few years become a subject of general talk, and the question has been raised as to the propriety of each State having a Commissioner of Lunatic visitation organized, to watch over this class of citizens. Allusion is often made to such jurisdiction in England. I confess I am not fully posted on this point, and it is to learn from some of our society, who may have more knowledge than I have, what can be said *pro* and *con* in this category. That abuses have occurred in hospitals, none of us will deny, and we all know what Pelions upon Ossa, have been heaped on our heads, from the days of Dr. Willis to this time. I am not insensible to the danger of exciting public feeling on this point, and approach

it with diffidence, but I think with due deference to this assembly, that it is worthy of consideration. I have conversed with members of our Legislature, who are disposed to bring up the question, and my opinion has been asked. I am, therefore, anxious to learn the views of other superintendents, being at all times willing to obtain knowledge, from a body so respectable as the one I now address. In the course of my experience, I must confess, I have known cases where injustice has been done to a few, by improper confinement, or by too long a detention, but I believe such cases are exceptions to the general practice.

The PRESIDENT. The chair would be glad to hear any suggestion from any member of the Association upon the subject introduced by Dr. Steuart.

Dr. EARLE. As Dr. Steuart has stated, the subject, we all know, is a very important one. In my opinion it is so very important that any action by this Association, at the present time, would do more harm than good.

Dr. RAY. I suppose my views on this subject are pretty generally understood, but I cheerfully repeat them. I have been connected with hospitals for the insane, about twenty-five years, and as the result of my observation, I have come to the conclusion that an indefinite amount of grumbling about these institutions must be regarded as one of the normal products of our present social condition. So long as there are insane men, and insane women, and men and women, more or less sane, so long there will be dissatisfaction in every community. There can be no change by any action of scientific bodies, or by this Association. The proper management of hospitals for the insane, will naturally give rise to some feeling of dissatisfaction. They are not open to the public to go in and out as a menagerie is. Seclusion is a necessary element of their existence, and yet from the kind of secrecy or privacy required for the performance of their special functions, springs in many minds a suspicion that all is not right. For our only remedy for this feeling, we must depend upon the intelligence of the people, and this, I believe, will always be sufficient for the purpose. In accounting for the popular commotions that occasionally arise against hospitals, we are apt to forget the distinction between spasmodic, sensational movements, and those which are the result of intelligent, well matured convictions.

There is in the community a craving for sensation which must be gratified, and it is a matter of accident rather than any settled convictions that turns it in one direction, more than in another.

The feeling which sends crowds of people to hear Mr. Alger lecture against hospitals, induces other crowds to listen to George Francis Train, or Victoria Woodhull. I do not believe that hospitals are materially affected by this propensity. I have had a great deal of experience with it, and yet I am persuaded there prevails in our communities a profound respect for those institutions, by virtue of which they are protected against unfair treatment. In many cases where clamor has been the loudest, the particular object of the popular wrath has not been found to suffer. I am not aware that those institutions which have been most talked against, have lost the public confidence; certainly such a result does not appear in the loss of patients. Persons not acquainted with the subject have but a vague and obscure idea of what these institutions are, and although they may have been impressed in some degree by those stories, yet the impression does not take an active form, it does not influence their action. When the time for action comes,—when it becomes necessary for them to learn the actual truth, prior to placing a friend in the hospital, then they begin with making inquiries especially of those who have personal knowledge of the institution, and in whom they can confide; and the result is, generally, that the patient is sent.

I do not like to indulge in personal experiences, but they are more expressive sometimes perhaps, than general observations. Let me say that my own experience fully confirms these facts: "In days long gone by," when I was a superintendent "away down east," there was one of these outbreaks of popular clamor. The matter was brought into the Legislature, and in the course of the debate which it provoked, a member referring to the institution, declared it ought to be blown up with gun-powder, and its officers with it. Six weeks after, that man brought his sister to the institution. Once a man—a half recovered patient—came around in my neighborhood lecturing against hospitals for the insane in general, and against me in particular. He made quite a sensation. The hall was filled night after night. He also peddled about a little pamphlet containing his experience in a hospital, with that of others, and I was represented by a picture on the cover, standing over a patient, held down on the floor by a couple of attendants; and yet nobody troubled himself to inquire of me as to the facts, or manifested any loss of confidence. People enjoyed it as a good joke, as something to while away the time of an idle evening, or as a substitute for the circus. They bought his pamphlet to see what it might contain, as they buy the yellow covered

trash that circulates in railway cars. I think all my associates here can confirm what I have said, out of their own personal experience.

The Secretary announced that Dr. Eastman had presented plans of the new hospital at Worcester, Massachusetts, for the inspection of members; that he would like to have them give their views on them.

Dr. D. T. BROWN. Responding to Dr. Ray's call, I will mention some incidents connected with the crusade of certain newspaper writers against the Bloomingdale Asylum, during the past summer. Immediately upon the publication of the principal slanderous editorial in the *New York Tribune*, the governors of the asylum appointed a large committee of their number, to make a thorough examination into the alleged abuses of management, and report the results to the Board. A minute investigation was made by seven gentlemen of the highest character, and prominent in the community, both as business men and philanthropists. This report denied the allegations and approved the management of their officers. A copy of this report was sent to various newspapers, one of these being the *New York Tribune*, which paper charged four hundred and twenty dollars for publishing the report in an inconspicuous type and place.

Another incident in this connection may possess more interest to you as illustrating a truism often found in Insane Hospital Reports, that insanity spares no class of men nor any grade of intellect. But a few months after this onslaught of the *Tribune* upon the Institution of which I have medical charge, its "great editor," Mr. Horace Greeley, became insane, and in a brief period the "managing editor" of the paper came to consult me as to what should be done for him. I recommended that he be placed in the care of one of our colleagues, Dr. George Choate, at whose private institution the distinguished journalist and recent candidate for the presidency of the United States, died of exhaustive acute mania.

I may add that Mr. Greeley was not the only editor of the *Tribune* who had been under my professional care, and that had it not been that the obligations of professional confidence forbade, I could very readily have established a "counter-irritation" to the *Tribune's* attack, which would have been amusing to the public if not edifying to scientific readers. It has happened to me to have

had other experiences in this matter of journalism, which may be worth mentioning as indicative of the kind of ethics which pervade the professors of that "science," and the needlessness of the indignation we feel at newspaper denunciation of our institutions and our management.

One of these occasions will serve as example for several of the same general features. A leading New York paper published within a few years, two long and severely denunciatory articles upon the care of the insane in hospitals, for their special custody and treatment, taking for its text the complaint of an insane man in his petition for a writ of habeas corpus. Not long after the publication of these articles, the writer of them sought to place his own sister in the Bloomingdale Asylum, surreptitiously, on the pretext that she was to be allowed to attend upon her husband—a general parietic—while the real object was to exercise a custodial control over her own movements and her propensity to intemperance. She was not received into the Asylum.

I could mention other cases of my ineffectual attempts to procure insertion of communications defending sister institutions, or a colleague, unjustly assaulted in a newspaper; the only reason assigned for the refusal being that "the matter was no longer of public interest" or that "the party himself could send a statement." On one of these occasions an editor, then in our institution as a patient, advised me never to reply to newspaper attacks, unless willing to prosecute the paper for libel, as such responses were generally made a pretext for new slanders, rather than for an explanation or an apology. In this instance an extravagantly censorious article against one of our largest and best known State Hospitals, had appeared in the journal of which the gentleman referred to, was associate editor. I had written and sent a remonstrance against such detraction, but no notice was taken of it, and in reply to my queries on the matter, the editor made this reply substantially, "Newspapers furnish wares for an uncertain market and these wares must vary with the changes in the demand. In the case you mention, the presumption is that the public had lost interest in the matter, and that the managing-editor excluded your communication for that reason." "Newspaper writers," said he, "beyond all other men dislike to acknowledge themselves in error." When my time came to be unjustly attacked, I concluded to act on the advice of this editor, and therefore made no reply through the press, accepting the report of the committee of Trustees as my vindication. I sought to show

my equal appreciation of my advisor's counsels and my contempt for the ethics of his fraternity. In regard to the influence of such newspaper criticism upon the relation of our patients and upon the institutions themselves, I may say that the only diminution in numbers of our own household was limited to a single individual. A lady recently admitted, was removed by her brother, who brought her back on the following day, saying that she had not retired to bed during the night, and had declared she would not lie down until she returned to the Asylum. This satisfied the brother that she could not have been ill-treated at the Institution. I should have stated before that the legal cases on which the *Tribune* based its clamor, were all decided by the Courts in accordance with the views held by the asylum officers. I have never been able to ascribe any other motive for the newspaper attack than a selfish one, and expectation of profit by creating a public sensation and curiosity. As Dr. Steuart has made allusion to State Commissioners of Lunacy, I may say that the Legislature of New York, at its last session passed an act creating such a commission, and that within a day or two, the Governor of the State has appointed as commissioner, Dr. John Ordronaux, a gentleman of some practical experience in our department of medicine, and widely and favorable known as Professor of Medical Jurisprudence, in several Medical Colleges, and Law Schools. The experience of the State of New York, under this commission, may in a few years be instructive and valuable to other communities.

Dr. GRAY. The idea of a Commission of Lunacy dates back in New York to 1854, and has been agitated several times since. The law just passed has some objections, but experience will reveal them, and the law can be modified to meet the best interests of the public. I fully agree with Dr. Brown, that in the appointment of Dr. Ordronaux, as Commissioner in Lunacy, the institutions, and the public interests will in every way be safe. I hope the Association will take no action until, as Dr. Brown suggests, we may be able to determine what value such an official may have in a State where the commissioner is one of the best qualified men that could be put in such a place.

Dr. RAY. The objection is not so much to the office of commissioner as the duties which are prescribed in the statute creating the office. Dr. Gray suggests that it is better to wait and see the practical operation of the law before expressing an opinion about it. I think we are prepared to form a judgment now, if the duties of the commissioner are to be those prescribed in the bill as framed by the Attorney-General.

Dr. GRAY. There were several modifications of the bill first proposed by the Attorney-General, some being suggested by the Board of State Charities, some made by the legislative committee having it in charge. I am not prepared to state the details however.

The minutes of the meeting were then read and approved, and the Association adjourned to meet at 7 1-2 P. M.

The Association spent the afternoon in visiting the Sheppard Asylum, now in course of erection, examined the building, and the very fine grounds, and in returning to the city, passed through the tastefully arranged and beautiful grounds of Mr. D. Perrine.

FRIDAY—EVENING SESSION.

May 30, 1873.

The Association was called to order at 8 P. M. by the President.

Dr. Earle, from the Committee on Resolutions, made the following report, which was unanimously adopted.

The Association of Medical Superintendents of American Institutions for the Insane, being about to close its twenty-seventh annual meeting, (and its second in the city of Baltimore, after an interval of twenty years,) the members desire to place on record their sense of the personal benefits and gratification derived therefrom, and their appreciation of the courtesies extended to them by their brethren and the good people of the Monumental city, therefore,

Resolved, 1. That with sorrowful hearts we look in vain for the genial face and warm hand of our beloved brother, the late John Fonerden, whose welcoming smiles and hearty salutations were wont to add so greatly to the social pleasure of our former gatherings. He has gone to his rest, and has entered on his reward.

2d. That this meeting, notable for its number of representatives, far exceeding that of any former year, is heightened by the presence of no less than five of the six now living, of the thirteen original founders of the Association. May their presence and counsels help to guide our deliberations for many years to come.

3d. That the retirement of Dr. Butler from the active duties of Asylum life, and from the chair of the Association at this juncture, leaving but three of the original members in active service, marks the close of the first chapter in our history, and surrounds this meeting with an interest peculiar and suggestive.

4th. That the pleasure of our present session is further increased by the unexpected, but always welcome presence of our coadjutor in the cause of humanity, Miss Dix, whose intelligent zeal and helpful sympathy is in no jot or tittle abated by increase of years or diminution of strength.

5th. That our hearty thanks are due to our colleague, Dr. William H. Stokes, for his cordial and elegant reception, and to our old friend Dr. R. S. Steuart, for his courtesies and hospitable welcome to Baltimore, and to Dr. Stokes and the Sisters of Charity for the privilege of examining the commodious, comfortable and pleasant provision for the insane at the new Mount Hope Retreat. Gratified in the highest degree by the liberal provision for comfort, convenience and health, as well as by the cheerfulness and neatness everywhere observable throughout the spacious corridors and ample parlors and bedrooms, we still deeply regret the wide departure from the principles laid down with entire unanimity by this Association to govern the construction of hospitals for the insane. We shall long remember this charming visit.

6th. To the President and Physician of the Maryland Hospital, for the opportunity of visiting that venerable institution in its new and beautiful location. In every particular a first class hospital, Maryland may well be proud of it. The severe labor of years has wrought out a structure worthy of the State and creditable to the heads and hearts of those who have so long and so patiently labored for this end. We trust the good President will live long to see and enjoy its successful operations.

7th. To I. Laurin Norris, Esq., and the Trustees of the Shepard Asylum, for a pleasant visit to that institution, now nearly half completed. When finished it will add another to the list of Maryland charities which are doing so much to alleviate misery and enoble mankind.

8th. To David Perrine, Esq., for a visit to his princely summer residence, and for his cheering hospitality. To him and to the ladies of his household, we can only offer our simple but sincere thanks.

9th. To the Trustees of the Bay-View Asylum, and to Dr. Coskey of St. Joseph's Hospital for invitations to visit their

respective institutions, which we were compelled most reluctantly to decline, because of previous engagements; and to the proprietors of the Eutaw House for the use of a parlor for our sessions, and for their attention to the wants of our members.

Dr. Gundry moved that the Superintendents of Institutions for Idiots be included in the membership of the Association, to which Dr. Gray moved to add the medical gentlemen in charge of Institutions for Inebriates. The amendment of Dr. Gray was agreed to, and the motion, as amended, was then voted down.

Dr. KIRKBRIDE. Mr. President, as the hour for our adjournment approaches, I feel that it would not be right to separate from my brethren without some very brief allusion to a few of the interesting reminiscences which connect our Association with this good city of Baltimore. It was here in this very Eutaw House, and in this room, which we are occupying to night, that this Association met almost twenty years ago, and it was here that this body adopted the series of propositions in relation to the organization of hospitals for the insane, which have been so universally recognized as being the only sound basis on which such institutions can be properly managed. At the meeting to which I have just referred, there were nineteen members present, and at this we have had no less than fifty-two. The changes throughout the whole country have been remarkable, and the provision for the insane has been more than doubled since we were here before. Nowhere have greater changes taken place than here. We all remember the old Maryland Hospital and the old Mount Hope. Those who visited them twenty years ago, and compare them now with the three noble structures, which we have recently examined, will acknowledge that the change is as great here as anywhere. The work on some of these, it is true, has been slow, but circumstances, that it is pretty safe to say, can never again occur, caused the foundations of one at least, which were laid on our previous visit, to have been almost all this long period in having the noble structure placed upon them, entirely completed.

The resolutions just passed make a very proper reference to some of the noble friends, who were with us twenty years ago, and whom we so much miss now, and yet it is pleasant to know that of the nineteen who composed that meeting, ten are present at this, and only four who are living, are absent. The venerable

President of the Maryland Hospital, is here now, just as he was then, with no diminution of zeal, and time has dealt so gently with him, that he seems almost as young as ever, while the same excellent officer continues the medical head of the other institution to which I have referred. All these changes in the number and character of American Institutions for the Insane, are certainly most encouraging to us all, and it is not too much to claim, that this Association is fairly entitled to no small credit for much of what is best in the great work which has been accomplished. Such results give us the best kind of encouragement for perseverance in the work in which we engaged, and in which all men, whether they recognize it or not, have an interest.

Dr. DENNY. Mr. President, will you have the kindness to define the official rendering and scope of the term "medical," in our title of "Medical Superintendents?" While I have no doubt of the significance attached to the expression of conveying, by implication, the idea that the Association itself thereby endorses the definition of a *strictly medical* supervisory authority on the part of a Superintendent, I concluded, since that point is in arbitration occasionally before governing Boards, to request an official decision.

Dr. KIRKBRIDE. At the time of the adoption of the constitution, there was one institution that had a superintendent who was not a medical man. That is the reason that the term was not used. I refer to the asylum now presided over by Dr. Worthington.

Dr. EARLE. I think in regard to that, there was no member present from that asylum. If I remember the circumstances, that word "medical" was introduced at my suggestion. I recollect distinctly the conversation I had with Dr. Bell about it. He wrote that article. The word "medical" was not in it, as originally written. I was then connected with the Bloomingdale Asylum, but was not superintendent of it. It was under the old organization. There were three independent officers: the physician, the warden, and the matron. I stated that fact, and Dr. Bell introduced the word "medical."

Dr. WALKER. In continuation of Dr. Kirkbride's reminiscences, allow me to recall other facts for the information of younger members of the Association. One is, that the Association consisted originally of thirteen members, six of whom are now living, and five of that number have been present at this meeting. Three of these are actively engaged as Superintendents of Hospitals, Dr.

Ray and Dr. Butler being out of active service. The three in active service are Drs. Kirkbride, Earle and Stribling. The other only living member is Dr. Wm. M. Awl, of Ohio. Not the first time in the history of the Association has there been a meeting that has not included one of the original members. Dr. Nichols and myself come in the second class. These allusions coming in at this time, cause a peculiar interest to cluster around this meeting, opening the second chapter in the history of the Association.

Dr. CURWEN. I will read the names of the original thirteen: Dr. Samuel B. Woodward, Dr. Samuel White, Dr. Isaac Ray, Dr. Luther V. Bell, Dr. C. H. Stedman, Dr. John S. Butler, Dr. Amariah Brigham, Dr. Pliny Earle, Dr. Thomas S. Kirkbride, Dr. Wm. M. Awl, Dr. Francis T. Stribling, Dr. John M. Galt, and Dr. Nehemiah Cutter.

The PRESIDENT. The Chair will remark, with the permission of the Association,—thinking it may be satisfactory to Dr. Denny,—his own impression in relation to the title of “Medical Superintendents.” As has been stated here, there was at least one institution that had a non-medical superintendent, a visiting physician or physicians. It is also well known that the original organization of Institutions for the Insane in England, was that of the institution in this country which has been referred to, the Friend’s Asylum at Frankford.

The progress of experience,—at least that is my idea, and I believe it is that of other gentlemen,—led to the conclusion that the physician and superintendent should be one and the same person; and hence the title “physician,” which was the common one in England, and was used in several of our Institutions for the Insane when first organized, was affixed to the title “Superintendent.” Many of the superintendents signed their reports as superintendent and physician, and by way of convenience among us, and as an acknowledgment from the former experience, of the propriety of having the office of superintendent and physician held by the same person, we have fallen into the use of medical superintendent, although I do not know that it is the legal title of a single member of this Association. It seems to me that I received one or two reports in which the chief medical officer signed himself “Medical Superintendent.”

In common parlance we call ourselves superintendents or medical superintendents. If we wish to be more definite than merely superintendent, we say medical superintendent, that being more convenient than superintendent and physician.

Dr. CURWEN. Referring to reminiscences, Dr. Rockwell started from Brattleboro to be present at the organization of the Association, but was detained by some accident, which entirely prevented his reaching Philadelphia. Railroads were not as common then as now.

The minutes of the meeting were then read, and the Association adjourned, to meet in Nashville, Tennessee, on the third Tuesday of May, 1874.

JOHN CURWEN, Secretary.

NITRITE OF AMYL IN THE TREATMENT OF SPASMODIC ASTHMA AND ACUTE BRONCHITIS.

BY DANIEL H. KITCHEN, M. D.,
Assistant Physician of the New York State Lunatic Asylum.

The very name of this drug suggests to the reader a remedy of recent origin. Some have used it with moderate success in the treatment of epilepsy and kindred nervous diseases. So far as we have been able to ascertain, it has been employed but little by the profession, in spasmodic troubles, as we find but one case of asthma reported in which nitrite of amyl has been used. We well know how apt one is to put forth a theory, or advance a hobby, often greatly at variance with truth, after full investigation. We shall here present, however, only a few cases, in the hope that at some future day we may be able to give details of experiments and experience with this drug.

In speaking of spasmodic asthma, it may be well to present the main points of the disease. Dr. Forbes some years since, first recognized and described it as a disease *per se*. Some modern writers doubt the very existence of nervous or spasmodic asthma; for instance, Dr. Clutterbuck, in an able and interesting lecture on clinical medicine, says, in substance, it is desirable to inquire how far the term spasm is really applicable to affections of the respiratory organs, or to what extent the respiratory muscles are concerned in certain cases of dyspnoea, for it is to muscular structures only that spasm can be referred.

The only muscles found in the course of the air tubes are those of the larynx; but these have no share in producing asthma. Muscular contractility could serve no useful purpose, as far as we can judge; but, on the contrary, it could only be exerted to the detriment of the function concerned.

It seems, therefore, unreasonable to infer the existence of spasm at this part, in order to account for the asthmatic paroxysm. To an anatomist it is plain that we may have spasm of the trachea, because the rings are incomplete, forming only about two-thirds of the circle. This provision was intended to allow the trachea to increase and diminish in size with respiration. Asthma is a nervous disease and subject to variations. The suddenness with which the attacks are ushered in is somewhat remarkable. The patient may be sitting quietly, and suddenly be attacked with difficult respiration and marked wheezing, which may continue for several hours. Usually the paroxysm abates after vomiting a copious discharge of sputa; on examining the chest during the height of an attack we hear distinct bronchial rales, both dry and moist; percussion does not reveal any variation from the normal chest sounds.

The appearance of the patient is very characteristic when the paroxysm is fully developed. He is usually pale, the position is fixed, the shoulders raised, the body bent forward, and the sweat pours off the face, from the violence of the respiratory efforts.

In one of our cases the paroxysm was so intense that the patient had to sit up half the night, and could not lie down without producing symptoms of asphyxia; at times there was marked lividity of the lips and face, gasping, loud and prolonged wheezing, with congestion of the face and neck. This condition was frequently repeated.

The age at which patients are usually attacked with asthma is such that prompt treatment is imperative.

In the treatment of this disease two things are to be considered: First—to relieve the paroxysm. Second—to prevent its recurrence.

The treatment heretofore has been stramonium; by first exhausting the air from the lungs, then rapidly inhaling the smoke. Belladonna, chloroform and fumes of nitrate of potash have also been used, each with some degree of success. Dr. Wood has shown in his valuable experiments on animals that nitrite of amyl is almost a universal sedative, acting markedly on the muscular fibre through the motor nerves.

The physiological effects produced in a few seconds after inhaling from five to ten or fifteen drops of the nitrite of amyl, are flushing of both cheeks, suffusion and redness of the eyes, giddiness, numbness and coldness of the hands, seeming loss of power to articulate, increased heat, pulse rapid and small, sometimes nearly doubled.

These effects soon disappear and the pulse falls below its normal condition, the skin which was moist and covered with perspiration becomes dry, the capillaries of the eye contract, the dizziness passing away among the last of the effects. There can be no doubt but that the inhalation of nitrite of amyl causes diminished blood pressure. Sensation or consciousness are not abolished by its use, therefore it can not be properly called an anæsthetic, as some writers have asserted, and no drowsiness follows. It would seem that the nitrite of amyl reduces blood pressure by its action on the capillaries; the first symptom we have spoken of, the flushing of the face, shows plainly enough its direct action on the capillary system. After the application of the salt to the web of a frog's foot dilatation of the capil-

laries is perceptible for a few seconds and contraction immediately follows.

In asthma the benefit derived from nitrite of amyl is due to its paralyzing power over the capillary vessels of the trachea, larynx, &c.

In acute bronchitis we have almost invariably a congestion of the fauces, and the whole respiratory tract, which produces irritation and causes coughing, and nothing can be more annoying both to the patient and his friends. Now if nitrite of amyl acts on the capillary system as described, then its use in this affection must prove advantageous.

In cutting short attacks of spasmodic asthma, and in the treatment of acute bronchitis, we have found nitrite of amyl more efficacious than any of the ordinary medicines heretofore used.

As nitrite of amyl is exceedingly volatile and care is required in its use, it is best applied by dropping it into a small cup sponge, and applying immediately to the nose, the mouth being kept shut.

Our first experiments, with less than five drops, were utterly nugatory, being insufficient to make the necessary physiological impression.

We now give a few cases illustrating its effect :

CASE I. Woman, aged fifty, widow. Patient usually had good general health. Has had spasmodic asthma for ten years. The paroxysms usually came on in the forenoon and lasted about two hours; during all this time respiration was very labored, face and lips purple. She had used the various remedies recommended for asthma, with little or no good. A pill of extract of stramonium and belladonna seemed to afford slight temporary relief. During one of the paroxysms we gave her six drops of the nitrite of amyl, by inhala-

tion, with marked beneficial results. This paroxysm lasted only half an hour. She had a paroxysm later in the same day, in which we prescribed ten drops, inhaled from a sponge; the full physiological effects were almost immediately observed, and speedy relief followed; the paroxysm lasted less than ten minutes from the time the nitrite of amyl was administered.

CASE II. Woman, aged forty, married. Patient is nervous and hysterical; usually enjoyed fair general health, with the exception of suffering more or less from some dyspnœa and dyspeptic symptoms. With the variable-ness of the weather, she took cold, and following sneezing, &c., came asthma. The cough aggravated the dyspnœa; the shortness of breath, the deep sense of suffocation and wheezing, the oppression and constriction of the chest were so severe that they threatened immediate destruction. She was thoroughly accustomed to many similar attacks, and patiently awaited any result. She had been in the habit of smoking equal parts of tobacco and stramonium leaves, with some temporary relief. When we first prescribed for her we used the steam atomizer, causing her to inhale the steam from carbolic acid, tolu and chlorate of potash. For two or three times this seemed to work well, but its effect was soon lost on the patient, and the paroxysms were as severe as ever. Her attacks lasted usually from six to ten hours. During the midst of one of these we gave her six drops by inhalation, of nitrite of amyl, and after waiting a few minutes, the dyspnœa began to subside. We gave nitrite of amyl to this patient six times, in doses varying from six to fifteen drops, and when administered in the latter dose, rapid and satisfactory relief followed. This patient had consulted a number of doctors and used drugs largely; she ex-

pressed herself as never before having had any satisfactory relief, and said she would always feel grateful to the man who originated nitrite of amyl.

CASE III. Woman, aged twenty, single. In the latter part of September had an attack of acute bronchitis, with severe paroxysms of coughing and sneezing. During each of these attacks, the dyspnœa was well marked; the face, lips and eyes were intensely congested; ordinary expectorants were prescribed for the bronchitis, and inhalation of ten drops of the nitrite of amyl for the cough. This proved effectual and cut short the cough and afforded much relief to the patient.

CASE IV. Woman, aged twenty-five, single. In the early part of September last had an attack of bronchitis of the smaller tubes, with fever and catarrh. She had frequent periods of coughing which always produced intense headache and general constitutional disturbance. Nitrite of amyl was given in eight drop doses by inhalation, during the paroxysm of coughing; in less than five minutes all the congestion of face and eyes had subsided and the dyspnœa disappeared. In this case occasion required it to be used only twice.

We have similar cases of asthma and bronchitis, in which the same marked benefit has been experienced; the similarity is so great that it is unnecessary to report them.

INSANE CRIMINALS IN ITALY.

BY DR. BIFFI, OF MILAN.

The proportion of criminal lunatics in Italy is obviously below that of other nations, for it amounts to 0.38 per cent., whereas in Scotland it reaches 12, in England as much as 64, and 5 in the German penitentiaries. Shall we conclude therefrom that insanity is rare among Italian convicts? Of course, not. The idea that criminal acts may be the offspring of a morbid impulse has as yet found no access in our public mind; hence, madmen are regarded in our prisons as ferocious, uncontrollable, or incapable of education instead of insane. Another reason is our want of such asylums for criminal lunatics as they have in England, wherefore, insane convicts, once thus acknowledged, are refused ready admission in our few and mal-surveilled asylums, or rejected therefrom as dangerous patients.

It is a fact that not a few individuals completely insane, may be met with under restraint in our penitentiary cells. Lombrozo found in the jail of one of our leading provinces, a wretched case of pellagra, whose father and uncle had pellagra, serving a sentence of fourteen years, for having stolen some kilogrammes of onions, which he picked up from a field, while in one of his attacks, when he was impelled to run in a straight line, taking hold of everything that came in his way, until exhausted, when he would pass into a profound sleep for twenty-four hours. He not only confessed his guilt of a theft he had not committed, but declared that he merited to be executed, and notwithstanding such declarations, his refusal to take any food, with

attempts to strangle himself, and the display of the erythema of pellagra, in addition to his having been twice in the hospital, he was condemned.

Another man, whose grandfather, father, and brother were epileptics, murdered a person, an entire stranger to him, without motive or feeling of revenge, while he was in a state of epileptic drowsiness. He, however, remained incarcerated, serving out his sentence.

These statistics render manifest that a great number of lunatics are condemned in disregard of the evidence of their insanity. Thus, 8 imbeciles, 1 cretin, and 2 demented, were affected previous to the commission of their crimes, insanity, in their respective cases, being either congenital, or consecutive to some long standing affection. The degree of instruction of the prisoners furnishes a further proof; 214 out of 3,045 males, or 7 per cent., and 24 out of 200 females, or 12 per cent., were illiterate. Proof again is given by the 5 who committed suicide, and the 6 who attempted it who had exhibited symptoms of insanity before. One of them, as it is stated, had delusions of persecution, and would become furious and attempt suicide, on seeing his keepers, whom he supposed to be the originators of his brother's ruin. He was insane when imprisoned, and condemned to fifteen years for larceny, for belonging to an armed band, and for breaking out of prison.

The absence of insanity among females is a curious fact, exhibited by these statistics. Being accustomed to a life of retirement they are less susceptible than males to be affected by seclusion. This striking discordance with the results of the general statistics of insanity should indicate, however, that some omission has occurred in these researches. It is no less remarkable that banishment and penal agricultural colonies,

did not afford any example of insanity, which is noticeable in its highest degree among those under the mixed system of Tuscany and that of Auburn. However, to arrive at any reliable conclusions on these special influences, more numerous data are required.

The largest proportion of lunatics was found among those condemned to penal servitude for life. Perhaps the dread of their sentence operated on their mind, although the fact may be more readily accounted for by a greater predisposition to insanity among those unfortunates, who were, more than others, prone to crime.

The unfavorable conditions of imprisonment influenced the character of the insanity, and hence the predominance of the depressing varieties: 1 mania, 9 monomania of persecution, 2 nostalgia, 2 suicidal monomania, 3 hypochondria, 5 melancholia, the whole amounting almost to a half (22) of the cases, whereas the examples of exaltation and erotism reach only 4.

The meagre proportion of maniacs, and of acute delirium (7) is striking, and as they form a large class in our hospitals, it evinces that they pass unnoticed or are not transferred until long after the supervention of the disease, when it has become chronic. The scarcity of sensorial monomania (5) is worthy of particular notice, for it frequently attends the close cell system and the interdiction of conversation; yet, the hallucinations of sensation which often torment, in silence, the brains of their unfortunate victims, escapes the vigilance of prison keepers with the same frequency that it does those of persons outside.—*Archivio Italiano per le Maladie Nrevose, &c.*: 1st Novembre, 1872, p. 360.

LIABILITY OF INSURANCE COMPANIES FOR LOSSES BY SUICIDE.*

Mr. Justice Hunt delivered the opinion of the Court.

This action was brought to recover the sum of \$2,000, claimed to be due upon a policy of insurance on the life of George Terry, made and issued to the plaintiff, his wife.

The policy contained a condition, of which a portion was in the following words, viz: "If the said person, whose life is hereby insured, * * shall die by his own hand, * * this policy shall be null and void."

Within the term of the policy, George Terry died from the effects of poison taken by him.

Evidence was given tending to show that at the time he took the poison he was insane. Evidence was also given tending to show that at the time he was sane and capable of knowing the consequences of the act he was about to commit.

Thereupon the counsel for the defendant asked the court to instruct the jury—

First.—If the jury believe from the evidence in the case that the said George Terry destroyed his own life; and that, at the time of self-destruction he had sufficient capacity to understand the nature of the act which he was about to commit, and the consequence which would result from it, then, and in that case, the plaintiff can not recover on the policy declared on in this case.

Second.—That if the jury believe from the evidence that the self-destruction of the said George Terry was

*Supreme Court of the United States. [No. 166.—December Term, 1872.]
The Mutual Life Insurance Company, of New York, Plaintiffs in error, vs.
Mary Terry.

intended by him, he having sufficient capacity at the time to understand the nature of the act which he was about to commit, and the consequences which would result from it, then, and in that case, it is wholly immaterial in the present case that he was impelled thereto by insanity, which impaired his sense of moral responsibility, and rendered him, to a certain extent, irresponsible for his action.

Which instructions, and each one of said instructions, the court refused to give to the jury, but the court did charge the jury as follows:

"It being agreed that deceased destroyed his life by taking poison, it is claimed by defendant that he 'died by his own hand,' within the meaning of the policy, and they are, therefore, not liable.

"This is so far true that it devolves on the plaintiff to prove such insanity on the part of the decedent, existing at the time he took the poison, as will relieve the act of taking his own life from the effect which, by the general terms used in the policy, self-destruction was to have, namely, to avoid the policy.

"It is not every kind or degree of insanity which will so far excuse the party taking his own life as to make the company insuring liable.

"To do this, the act of self-destruction must have been the consequence of the insanity, and the mind of the decedent must have been so far deranged as to have made him incapable of using a rational judgment in regard to the act which he was committing.

"If he was impelled to the act by an insane impulse which the reason that was left him did not enable him to resist, or if his reasoning powers were so far overthrown by his mental condition that he could not exercise his reasoning faculties on the act he was about to do, the company is liable. On the other hand, there is

no presumption of law *prima facie* or otherwise, that self-destruction arises from insanity, and if you believe from the evidence that the decedent, although excited or angry, or distressed in mind, formed the determination to take his own life, because in the exercise of his usual reasoning faculties he preferred death to life, then the company is not liable, because he died by his own hand within the meaning of the policy."

The request proceeds upon the theory that if the deceased had sufficient mental capacity to understand the nature and consequences of his act, that is, that he was about to take poison, and that his death would be the result, he was responsible for his conduct, and the defendant is not liable; and the fact that his sense of moral responsibility was impaired by insanity, does not affect the case.

The charge proceeds upon the theory that a higher degree of mental and moral power must exist; that although the deceased had the capacity to know that he was about to take poison, and that his death would be the result, yet, if his reasoning powers were so far gone that he could not exercise them on the act he was about to commit, its nature and effect, or if he was impelled by an insane impulse which his impaired capacity did not enable him to resist, he was not responsible for his conduct, and the defendant is liable.

It may not be amiss to notice that the case does not present the point of what is call emotional insanity, or *mania transitoria*, that is, the case of one in the possession of his ordinary reasoning faculties, who allows passions to convert him into a temporary maniac, and while in this condition commits the act in question. This case is expressly excluded by the last clause of the charge, in which it is said that anger, distress or excitement does not bring the case within the rule, if the insured possesses his ordinary reasoning faculties.

The case of *Borrodaile vs. Hunter* (5 Man. & G., 639,) is cited by the insurance company. The case is found also in 2 *Bigelow Life and Acc. Ins. cases*, p. 280, and in a note appended are found the most of the cases upon the subject before us. The jury found in that case that the deceased voluntarily took his own life, and intended so to do, but that at the time of committing the act he was not capable of judging between right and wrong. Judgment went for the defendant, which was sustained upon appeal to the full bench. The counsel for the company argued that where the act causing death was intentional on the part of the deceased, the fact that his mind was so far impaired that he was incapable of judging between right and wrong did not prevent the proviso from attaching; that moral or legal responsibility was irrelevant to the issue. The counsel adds:

“It may very well be conceded that the case would not have fallen within the meaning of the condition had the death of the assured resulted from an act committed under the influence of delirium, or if he had, in a paroxysm of fever, precipitated himself from a window, or, having been bled, removed the bandages, and death in either case had ensued. In these and many other cases that might be put, though, strictly speaking the assured may be said to have died by his own hands, the circumstances clearly would not be such as the parties contemplated when the contract was entered into.” In delivering the opinion of the court, *Erskine, J.*, says all that the “contract requires is, that the act of self-destruction should be the voluntary and willful act of a man having at the time sufficient powers of mind and reason to understand the physical nature and consequences of such an act, and having at the time a purpose and intention to cause his own death by that act,

and the question whether at the time he was capable of understanding the moral nature and quality of his purpose, is not relevant to the inquiry further than as it might help to illustrate the extent of his capacity to understand the physical character of the act itself." Chief-Justice Tindal dissented from the judgment. In speaking of the verdict he says "it is not, perhaps, to be taken strictly as a verdict that the deceased was *non compos mentis* at the time the act was committed, for if this latter is the meaning of the jury, the case would then fall within that description mentioned in the argument to be without the reach of the proviso, namely, the case of death inflicted on himself by the party whilst under the influence of frenzy, delusion or insanity." This authority was followed in *Clift vs. Swable*, 3 Com. B., 437, where it was substantially held that the terms of the condition included all acts of voluntary self-destruction, and that, whether the party is a voluntary moral agent, is not in issue.

These decisions expressly exclude the question of mental soundness. They are in hostility to the tests of liability or responsibility adopted by the English courts in other cases from Coke and Hale onwards. Coke said "a little madness deprives the lunatic of civil rights or dominion over property, and annuls wills." But, to exempt from responsibility for crime, he says "complete ignorance of the knowledge of right and wrong must exist." Lord Mansfield holds the legal test of a sound mind to be the knowledge of right and wrong, of good and evil; of which the converse is ignorance of knowledge of right and wrong, of good and evil. Lord Lyttleton held the test to be the state called *compos mentis* or sound mind. Lord Erskine defined it to be the absence of any practicable delusion traceable to a criminal or immoral act. (Defence of Hadfield.) In 1

Pricard p. 16, on the different forms of insanity, will be found the somewhat lengthy definition of insanity by Lord Lyndhurst. (1 Shelf. Lun. 46.)

The English judges refuse to apply to the act of the insured in causing his death the principles of legal and moral responsibility recognized in cases where the contract, the last will, or the alleged crime of such person may be in issue.

In *Hartman vs. Keystone Ins., Co.*, 21 Pen. R., 466, the doctrine of *Borrodaile vs. Hunter* was adopted, with the confessedly unsound addition that suicide would avoid a policy, although there was no condition to that effect in the policy.

In *Dean vs. Mutual Life Ins. Co.*, 4 Allen, 96, the courts of Massachusetts held substantially the doctrine of *Borrodaile vs. Hunter*. In Kentucky, in *St. Louis L. Ins. Co. vs. Graves*, 6 Bush., 268, the court were divided upon the question of the soundness of *Borrodaile vs. Hunter*, but held unanimously that, where the suicide was committed during an uncontrollable passion caused by intoxication, the condition was broken and the policy avoided.

In *Cooper vs. Massachusetts Life Ins. Co.*, 102 Mass. R., 227, the doctrine of *Dean vs. Am. Life Ins. Co.* was reaffirmed, the plaintiff offering to prove that the deceased was insane at the time he committed the act; that he acted under the influence and impulse of insanity, and that his act of self-destruction was the direct result of his insanity.

In *Nimick vs. Ins. Co.*, 10 Am. L. Reg., 102, McKennon, Circuit J. U. S. Western District Penn., held that if the assured comprehended the physical nature and consequences of the act, and intended to destroy his life, the policy was void, although he did not comprehend the moral nature of the act.

On the other hand, in *Easterbrook vs. Union Ins. Co.*, 54 Main 224, the judge at the trial instructed the jury "that if the insured was governed by irresistible or blind impulse in committing the act of suicide, the plaintiff would be entitled to recover." This decision was sustained by the Supreme Court of the State of Maine.

In the State of New York the question arose in *Brearter vs. Farmers' Loan and Trust Co.*, 4 Hill, 731. In an action upon the policy the defendants pleaded that the deceased committed suicide by drowning himself in the Hudson River, and he died by his own hand. To this the plaintiff replied that the assured was of unsound mind and wholly unconscious of the act. The defendants demurred. The Supreme Court overruled the demurrer, holding that the reply afforded a sufficient answer to the plea.

The case afterwards came before the Court of Appeals of that State, 4 Seld., 299, when it was held that the provision in the policy had reference to a criminal act of self-destruction, that the self-destruction of the insured while insane, and incapable of discerning between right and wrong, was not within the provision.

In the case of *Gay vs. the Union M. Life Ins. Co.*, cited 2 Bigelow, *sup.*, p. 280, it was held that if the deceased was conscious of the act he was committing, if he intended to take his own life, and was capable of understanding the nature and consequences of it, the policy was void, but if the insured destroyed himself while acting under an insane delusion, which overpowered his understanding and will, or if he was impelled to the act by an uncontrollable impulse, the case did not fall within the proviso of the policy. This decision, it is stated by Bigelow, *sup.*, was the result of a careful deliberation between Judges Woodruff and Ship-

man at a Circuit Court of the United States held by them jointly.

In his work on insurance, Mr. Phillips, after citing the cases, closes thus: "And I take our law to be that any mental derangement which would be sufficient to exonerate a party from a contract would render a person incapable of occasioning the forfeiture of a policy under this condition." (Phil. on Ins., sec. 894.)

There is a conflict in the authorities which can not be reconciled.

The propositions embodied in the charge before us are in some respects different from each other, but in principle they are identical. They rest upon the same basis, the moral and intellectual incapacity of the deceased. In each case the physical act of self-destruction was that of George Terry. In neither was it truly his act. In the one supposition he did it when his reasoning powers were overthrown and he had not power or capacity to exercise them upon the act he was about to do. It was in effect as if his intellect and reason were blotted out or had never existed. In the other, if he understood and appreciated the effect of his act, an uncontrollable impulse caused by insanity compelled its commission. He had not the power to refrain from its commission, or to resist the impulse. Each of the principles put forth by the judge rests upon the same basis that the act was not the voluntary intelligent act of the deceased.

The causes of insanity are as varied as the varying circumstances of man.

———"Some for love, some for jealousy,
For grim religion some, and some for pride,
Have lost their reason; some for fear of want,
Want all their lives; and others every day,
For fear of dying, suffer worse than death."

When we speak of the "mental" condition of a person we refer to his senses, his perception, his consciousness, his ideas. If his mental condition is perfect, his will, his memory, his understanding are perfect, and connected with a healthy bodily organization. If these do not concur, his mental condition is diseased or defective.

Excessive action of the brain whereby the faculties become exhausted, a want of proper action whereby the functions become impaired and diminished, the visions, delusions and mania which accompany irritability, or the weakness which results from an excess of vital functions, indigestion and sleeplessness, are all the result of a disturbance of the physical system. The intellect and intelligence of a man are manifested through the organs of the brain, and from these, consciousness, will, memory, judgment, thought, volition and passion, the functions of the mind, do proceed. Without the brain these can not exist. With an injured or diseased brain, their powers are impaired or diminished.

We have not before us the particular facts on which the questions of the sanity of Terry were presented. We may assume that proof was given upon which the proposition of the charge were based. We do not know whether he was sleepless, unduly excited, or unnaturally depressed; whether he had abandoned his accustomed habits and pursuits and adopted new and unusual ones; from a quiet, orderly man, had he become disorderly, vicious, or licentious; that his fondness for his wife and children changed to dislike and abuse? That jealousy, pride, the fear of want, the fear of death had overtaken him? He may have realized the state supposed by the counsel in arguing *Borrodaile vs. Hunter*, viz.: That his death might have resulted from an

act committed under the influence of delirium, or that in a paroxysm of fever he might have precipitated himself from a window, or having been bled, he might have torn away the bandages.

Whether he swallowed poison or did the other insane acts, might result from the same condition of body and mind.

Delirium, fever, tearing away the bandages for preserving the life, the taking of poison, in a case like that before us, are all results of bodily disease. If bodily disease in these other forms overthrew Terry's reasoning faculties, in other words, destroyed his consciousness, his judgment, his volition, his will, he remained the form of the man only. The reflecting, responsible being did not exist. In the language of the successful counsel in *Borrodaile vs. Hunter*, "In these and many other cases, though, strictly speaking, the assured may be said to have died by his own hands, the circumstances clearly would not be such as the parties contemplated when the contract was entered into."

That form of insanity called impulsive insanity, by which the person is irresistibly impelled to the commission of an act, is recognized by writers on this subject. It is sometimes accompanied by delusions, and sometimes exists without them. The insanity may be patent in many ways, or it may be concealed. We speak of the impulses of persons of unsound mind. They are manifested in every form—breaking of windows, destruction of furniture, tearing of clothes, firing of houses, assaults, murders and suicides. The cases are to be carefully distinguished from those where persons in possession of their reasoning faculties are impelled by passion, merely, to the same direction. (See Blandford on Insanity—"Impulsive Insanity.")

Dr. Ray, cited by Fisher, approves the charge of the

judge in Haskell's case, where he says : "The true test lies in the word *power*. Has the defendant in a criminal case the power to distinguish right from wrong, *and the power to adhere to the right and avoid the wrong?*" (Fisher on Insanity, p. 83.)

The question of insanity has usually been presented upon the validity of an agreement, the capacity to make a will, or upon responsibility for crime. If Terry had made an agreement under the circumstances stated in the charge, a jury or a court would have been justified in pronouncing it invalid. A will, then, made by him, would have been rejected by the surrogate if offered for probate. If upon trial for a criminal offence, upon all the authorities, he would have been entitled to a charge, that upon proof of the facts assumed, the jury must acquit him. (Freeman vs. People, 4 Denio, 9; Williss vs. the People, 32 N. Y., 719; Seaman So. vs. Hoffner, 33 N. Y., 619; the Marquis of Winchester's case, 6 Coke R., 23; Combe's case, Moore, R., 759.)

We think a similar principle must control the present case, although the standard may be different.

We hold the rule on the question before us to be this: If the assured, being in the possession of his ordinary reasoning faculties, from anger, pride, jealousy, or a desire to escape from the ills of life, intentionally takes his own life, the proviso attaches, and there can be no recovery. If the death is caused by the voluntary act of the assured, he knowing and intending that his death shall be the result of his act, but when his reasoning faculties are so far impaired that he is not able to understand the moral character, the general nature, consequences and effect of the act he is about to commit, or when he is impelled thereto by an insane impulse, which he has not the power to resist, such death is not within the contemplation of the parties to the contract, and the insurer is liable.

In the present instance the contract of insurance was made between Mrs. Terry and the company, the insured not being in form a party to the contract. Such contracts are frequently made by the insured himself, the policy stating that it is for the benefit of the wife, and that in the event of death the money is to be paid to her. We see no difference in the cases. In each it is the case of a contract, and is to be so rendered as to give effect to the intention of the parties. Nor do we see any difference for this purpose in the meaning of the expressions, commit suicide, take his own life or die by his own hands. With either expression, it is not claimed that accidental self-destruction, death in endeavoring to escape from the flames, or the like, is within the proviso.

The judgment must be affirmed.

Dissenting, Mr. Justice Strong.

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NEW HAMPSHIRE. *Report of the New Hampshire Asylum for the Insane*: 1873. Dr. J. P. BANCROFT.

There were remaining in the Asylum, at date of last report, 254 patients. Admitted since, 194. Total, 448. Discharged recovered, 61. Improved, 51. Unimproved, 27. Died, 33. Total, 172. Remaining under treatment, 276.

More patients have been treated this year than during any other since the opening of the Institution. The recoveries amounted to eighty per cent. of the admissions, of acute cases, whose insanity had existed

less than six months. Concerning the treatment of insanity, the Doctor remarks :

The observations of another year, I think, justify the belief that movement is in the right direction, and that real progress is being made in treating one of the most grave and painful of human diseases, and, especially, in greatly mitigating the sufferings of both those who do, and those who do not recover.

In regard to the purely medical treatment of the affections which are found in an asylum, there is nothing peculiar or different from ordinary practice, and the only advantage enjoyed in this particular is in the increased facility in diagnosis, and the adaption of remedies to symptoms, gained from larger observation and experience—the same advantage gained in every specialty in medicine.

But the main peculiarity in the hospital treatment of mental diseases is in the fact that so large a part of the curative agencies lie outside of purely medical prescriptions; indeed the latter might almost be regarded as subordinate. I do not propose to discuss the subject of moral treatment, but refer to the relative significance of this class of measures, to make way for a few words on the construction of hospitals; for I have no doubt that organization, facilities for classification, and the best adjustment of all private and social influences, may be made eminently remedial.

This branch of treatment, then, differs from the medical in this, that while the latter may be well done, and finished in a few simple prescriptions, there need be no limit to the former, except that imposed by the expenses of appliances. While this limit is a necessity which we can not escape, still, there are certain fundamental facilities, the existence of which are essential to the good results which, with them, are easily attainable; and without which the best personal efforts are comparatively fruitless. I refer to such architectural arrangements as shall secure the most desirable classification of patients, and meet, in the best manner, the wants of the average of cases, and thus supplement the personal efforts of physicians and attendants.

Increased accommodations for the classification of disturbed patients, and dining rooms for the same, are needed. A plan is submitted for these, as well as for a small hospital building, where the friends can visit the sick and feeble without being exposed to the intru-

sion of others, or disturbed by necessary attention to the routine business of the house.

NEW YORK. *Report of the State Lunatic Asylum*: 1872. Dr. JOHN P. GRAY.

There were remaining in the Asylum, at date of last report, 583 patients. Admitted since, 399. Total, 982. Discharged recovered, 142. Improved, 73. Unimproved, 156. Not insane, 14. Died, 62. Total, 447. Remaining under treatment, 535.

We present from the report of the managers of the Asylum, their remarks upon a subject of special importance, at the present time, to the medical officers of institutions for the insane.

The managers deem it timely and proper to call the attention of the Legislature to some embarrassing questions affecting the important charitable institutions dependent on the bounty and control of public authority, and which happens particularly to concern the institution under their immediate charge. The superintendents and officers of such charities are appointed to perform particular trusts and duties prescribed by law, and are properly held to the strictest performance of them within the reasonable powers and capacity of qualified men. To exact more of them is not only inconsiderate and unjust, but subversive of the very purpose of their appointment. They can not do everything; they can only do their particular duty. They are hindered in doing this by the frequent, and frequently unnecessary calls of judicial and of other authority, which they can not disregard without a real or technical disobedience of the law, which itself ought to protect them against a conflict of duties, and give weight, consideration and preference to the superior duty. There are two particulars of special grievance. 1. Such officials are often required, by subpoena or otherwise, to become witnesses as experts in cases of the alleged insanity of persons not under their care or observation; and are required, by a process for contempt, to obey the call, whatever may be the exigency of special duty in their special trusts. They are legally subject to be summoned away from that duty by any of the courts of high civil or criminal jurisdiction, by a surrogate, or even by a justice of the peace, to express a mere opinion, under

oath, respecting cases of which they have no proper opportunity for a particular knowledge. Every day they are liable to such summons. Every month, perhaps, they are actually summoned; and whatever may be the positive necessities of their office, those must be sacrificed, under the penalty of a contempt, and often for days together, to the capricious and froward demands of an attorney, or of a thoughtless or contriving party in a suit seeking after favorable professional witnesses. It may not be amiss to observe that this matter of the testimony of experts, especially in cases of alleged insanity, has gone to such an extravagance that it has really become of late years a profitable profession to be an expert witness, at the command of any party and ready for any party, for a sufficient and often an exorbitant fee; thus destroying the real value of the testimony of unbiased experts. Vaunted and venal expertness is usually worthless for evidence; and yet such testimony is getting to be in great demand. One expert, whether real or assumptive, is set up against another; and finally it will result that, by competition, pretending inexpertness will prevail, by numbers, against the real expertness of those few thoroughly qualified men whose judgment is the mature experience collected from years of daily study and practical observation. Obviously it does not become States, or great tribunals, or public justice, that the testimony which settles matters of weight should be trifled with as it is for an emolument; and experts should only be called, as formerly they were, by the court itself, on its own judgment of the necessity requiring them; and when called at all, they should be the sworn advisers of the *court and jury*, and not witnesses summoned in the particular behalf of any party; nor should they be permitted to receive either fee or reward from any party, but only from the court or the public. Capable judges are competent to say, in any case, whether the court requires the evidence of experts for its information in matters of technical knowledge or science, and also to say who shall be particularly summoned for his acknowledged expertness; and should, therefore, have the control of that sort of testimony, which is only allowable to enlighten the court and jury, and not to be the ordinary captious weapon of attorneys and counselors, nor to be the theoretical, one-sided opinions of sciolists, founded on some hypothetical case which deflects more or less from the actual truth of the real case in question. By a deviation from the old strictness of this rule, the testimony of opinions is gradually gaining control over the testimony of facts; and what ought only to affect the instructions of

the court on points of law, becomes weightier with the jury than the evidence of facts, which it is their peculiar duty and province to decide upon under proper instruction as to the law, with which juries are not ordinarily supposed to be particularly conversant. *De lege judices, de facto juratores, respondent.* The judges pass upon the law ; the jury upon the facts. True and impartial experts enlighten the judges, who instruct the juries ; and the whole virtue of expertness lies in the light it may shed upon obscure questions of a scientific or technical character, in which judges and juries are not supposed to be versed. Trials of criminals and questions about last wills have lately assumed the character of contests of expertness, so that the office of the court and jury seems to be narrowed to a judgment, not upon the value of proved facts, but on the weight of conflicting opinions. Such a perversion of law and testimony results in constantly calling away from their public duties those who have a repute of superior skill and experience, who are often made witnesses under circumstances that impair the due weight of their opinions, and are adverse to a fair expression of them. Some check should be interposed by law to prevent the frequent calls upon the medical officers of public charities as expert witnesses, by limiting the discretion of calling them to the court rather than to the parties to a controversy, or their attorneys and counselors.

Much interruption of the necessary official duty of the medical officers also arises from the somewhat summary granting by the courts of writs of *habeas corpus*, requiring them to leave their proper duties as public officers and to make returns to such writs, by a personal attendance with those in their custody, before some judge or court distant from the proper place of their official duty. This evil is double : 1. By requiring the frequent absence of the medical officer from his proper post. 2. By requiring the bodily presence of his ward, well or ill, at some distant or inconvenient place. Both evils are apparent on the mere statement of them ; and both may be remedied without any harm to public or private liberty or rights.

As to the first, a sheriff or some other civil officer, or some deputed servant of the court or judge, might be required to serve the writ or process, and at the same time to take charge of and produce in person the subject of the writ, when that is deemed necessary for the ends of justice and liberty, with an explanatory sworn statement in writing of the superintendent or other medical officer of the asylum or hospital, specifying the original and present cause of

detention; all which would doubtless be a sufficient and satisfactory return under all ordinary circumstances. But it is a most reasonable presumption that a person in the charge of a State institution is already sufficiently in the charge and custody of the State itself, for all purposes of personal safety and protection; and therefore, particularly, if not a criminal, should not be forced from his seclusion, until sufficient cause be shown for a rude and summary interference upon the return of such a preliminary process as is suggested. The State should so far confide in the officers of its own public charitable institutions as to take their returns of facts on affidavit as presumptive evidence of the truth; and should only put them to further question on good contradictory evidence impeaching the return. The result of such a proceeding would probably be, in nine cases out of ten, that no further return would be required by the court or judge, and that the patient himself would not be subject to personal disturbance, nor the medical officer to distraction or absence from his duties. It should be considered, also, that the forced personal appearance of a lunatic or imbecile on the usual process is often a serious and sometimes a fatal obstruction to his cure, or at least an impairment of his present health; and even if the personal appearance of the medical officer in charge of him should be absolutely required for the purposes of the return, the personal appearance of the subject of the writ should not always be imperatively demanded.

There should obviously be a discretion lodged somewhere, to meet the exigencies of special cases; and it would seem proper that the court or officer granting the writ should have that discretion, exclusive of the parties requiring its issue and enforcement.

Whoever officially grants such a writ, on proper cause shown, should be required to make it returnable before some proper judge or officer in the immediate vicinity of the subject of it and his legal custodian, so that the return might be expeditiously made, with as little interference with the public duty of the custodian and the personal welfare of his ward as will fairly meet the exigency. Such a provision as this would prove very serviceable in a multitude of cases, without any perceivable detriment to public or private rights.

The purpose of a writ of *habeas corpus* is to secure the liberty of every citizen from unlawful infringement. Although all confinement is an infraction of personal liberty, yet the State demands and authorizes confinement in particular cases, for the good of the community, for health, for safeguard, for punishment of crime.

The writ, should not, however, be allowed to defeat the purpose of the State. In the case of a lunatic confined to an asylum established by the State, and under its special charge and control, the presumption must necessarily be in favor of the State and its officers, that the confinement is for proper cause. Unless it be first manifestly shown, by abundant positive proof, and not by mere suggestion, that the confinement is legally unwarranted, no summary process should be suffered to break up the discipline of the State in its own institutions; nor, especially, to carry away, on short notice and peremptorily, its own officers, charged by a sort of attorneyship, with the duties of the State, and for that purpose representing itself. Such a proceeding is stultifying; it is giving and revoking authority in the same breath.

The best records show quite conclusively, that the commitments to State hospitals and asylums for the insane of persons who are not insane when committed, or who are detained after recovery, having been insane when committed, or who are not at once discharged when discovered to be sane, are so uncommon that not a case can be fairly vouched; and the final judgments in cases of *habeas corpus* affecting lunatics confined in State hospitals almost invariably result in returning the subjects of the writ into the same custody, often with an aggravation, temporary or permanent, of their malady, caused by their summary removal from the asylum and their forced appearance before the officer or court requiring their presence. There is a manifest inhumanity in thus publicly exposing human wretchedness so real as that of insanity. There should therefore be some modification of the proceedings in the case of the State institutions of a charitable purpose, so that a certificate or an affidavit of the chief officer or of his assistants, or a personal examination by some competent judicial officer in the vicinage, should *prima facie* be a sufficient legal return; and that before any personal appearance, either of a superintendent or of his ward, be positively demanded, the court or judicial officer should be abundantly satisfied by rebutting evidence that such a personal appearance is absolutely necessary for the ends of justice and right.

A modification adapted to such peculiar circumstances does not seem in any way to conflict with the purpose or principle of this humane writ. A strict compliance with its customary technical exigencies may often defeat its proper end. It should be made to subserve the purposes of both justice and humanity, if it can. In the case of many lunatics, death may release the victim of

disease and interference before the most summary law would do so. The quiet and seclusion so essential in such cases is abruptly disturbed, and the patient is prematurely sacrificed to an untoward technicality which, in such extreme cases, ought to lose its rigidity in favor of a crazed brain and insuperable weakness.

Dr. Gray has given a summary of the progress made in the department of special pathology.

All the necessary instruments have now been obtained, and a laboratory and photographic room have been properly fitted up. These arrangements include all that is required for chemical and microscopic examinations, for photography, and for photo-micrography. A large number of specimens of diseased and normal brain tissue have been mounted and prepared, and some twenty-five negatives of microscopic slides have been made. Printed copies of them were presented to the Board of Managers at their annual meeting.

The subject of special hospital accommodations for the sick and feeble, and also a plan for such a building is again presented to the managers. The Legislature has since made the necessary appropriation to carry out the views of Dr. Gray, and the building for the women's side of the house, is now in process of erection.

The remainder of the report contains the usual statistical matter, and results of post-mortem examinations.

We give the following extract from the report of Dr. Hun, the special pathologist:

From the above condensed report we find that in every case there was some considerable disease of the brain or its membranes. The well-known connection between tuberculosis and insanity is well illustrated by the fact that out of twenty-four cases, fourteen of them presented evidences of tubercular disease of the lungs.

The peculiar deflection of the transverse colon toward the pubis, so frequently mentioned by authors upon insanity, was observed in seven of the twenty-four cases.

In all of the above cases the brain was submitted to careful microscopic examination, but the results obtained were so varied that

I have found it impossible to tabulate the appearances observed in each case. Among the abnormal conditions revealed by the microscope were a granular fatty deposit in the enlarged peri-vascular sheath of the smaller vessels of the brain, a fatty degeneration of the nerve cells, an increased proliferation of the connective tissue, small effusions of blood from rupture of capillaries, microscopic miliary aneurisms (as described by Charcot,) and many other lesions which I have not as yet been able to classify, and which must remain to be fully described in some future report.

While examining the brain of a female patient who died during an attack of sub-acute mania in August, 1871, I saw, for the first time, a peculiar lesion of the tissue of the brain and spinal cord, which I subsequently met with in a number of cases, not only of acute mania, but also of other forms of insanity. These sections of the tissue, previously hardened in absolute alcohol, were made and colored with carmine, rendered transparent with benzole, and mounted in balsam. Examined by transmittent light, they could be seen with the naked eye to be studded with small white spots which were very numerous and of variable size. Under the microscope these spots presented a granular appearance, and many of them contained a number of elongated crystalline bodies. They did not imbibe the carmine solution to the same extent as the surrounding healthy tissue, and were of a pale greenish color. Their edges were not well defined, but the deposit seemed gradually to merge into the normal brain substance. They were circular or oval in form, and varied in size from one-twentieth to less than one five-hundredth of an inch in diameter. In some instances the nerve fibres seemed to pass through them, but as a general rule they appeared to be destroyed. These bodies occupied the white substance of the brain, none of them being found in the gray matter of the convolutions.

The following table gives the sex, age and form of insanity in the cases where the above deposits were observed;

- | | |
|---------------------------|------------------|
| 1. Female, 57 years | Sub-acute mania. |
| 2. Male, 28 years | Dementia. |
| 3. Male, 40 years | General paresis. |
| 4. Male, 45 years | General paresis. |
| 5. Female, 68 years | Chronic mania. |
| 6. Female, 37 years | Chronic mania. |
| 7. Male, 30 years | Dementia. |

Last year my attention was called to another form of deposit in the brain tissue, which differed from the preceding in that the

spots were smaller and their outline more distinctly defined. These deposits were very dense and white; they did not imbibe the coloring from a carmine solution, and contained none of the crystalline bodies observed in the first variety. They appeared to be surrounded by a capsule of condensed connective tissue, and none of them were traversed by nerve fibres, these latter being pushed to one side. They could be easily detached from the healthy tissue by teasing out the specimen with a needle, and in one section, which was accidentally torn, the morbid deposits could be seen protruding from the torn edge in the form of rounded projections.

The following is a list of the sex, age and form of insanity in the cases where this second form of deposit was found :

1. Male, 25 years.....Sub-acute mania.
2. Male, 62 years.....Chronic mania,
3. Male, 46 years.....Paroxysmal mania.
4. Female, 33 years.....Acute Mania.
5. Male, 52 years.....Dementia.
6. Male, 27 years.....General paresis.

PENNSYLVANIA. *Report of the Asylum for the Relief of Persons Deprived of the Use of their Reason:* 1873. Dr. J. H. WORTHINGTON.

There were remaining in the Asylum, at date of last report, 57 patients. Admitted since, 39. Total, 96. Discharged recovered, 8. Improved, 4. Unimproved, 4. Died, 2. Total, 18. Remaining under treatment, 78.

Improvements additional to those reported last year have been made. The windows of the disturbed wards have been enlarged. New airing courts prepared, and the grounds about the wings filled in and graded. The number of patients in the Institution at the close of the year, was larger than at any time since the opening of the Asylum.

MISSOURI. *Report of the Saint Louis County Insane Asylum:* 1873. Dr. W. B. HAZARD.

There were remaining in the Asylum, at date of last report, 299 patients. Admitted since, 68. Total, 367.

Discharged recovered, 28. Improved, 5. Unimproved, 15. Died, 15. Eloped, 2. Not insane, 2. Total, 67. Remaining under treatment, 300.

IOWA. *Sixth Biennial Report of the Iowa Hospital for the Insane*: 1872. Dr. MARK RANNEY.

There were remaining in the Asylum, at date of last report, 398 patients. Admitted since, 520. Total, 918. Discharged recovered, 203. Improved, 67. Unimproved, 35. Died, 112. Total, 417. Remaining under treatment, 501.

A much larger number of patients was received than the Institution could properly accommodate. The desire to care for all the acute cases, and for such of the chronic class as proved especially dangerous to themselves or others, led to the overcrowding. Many epileptics received admission, and sixteen died during the biennial period. Great changes have been required in the interior construction of the building. The lath and plastered walls which were in use for partitions, have been found entirely unsuited for the purpose. They were rapidly destroyed by the patients and required constant repairs. Upon some of the wards they have been replaced by a wall of masonry. This work will be continued throughout the building. We have in this, another instance of the poor economy of cheap structures, in which more money is spent in repairs than would be required for the erection originally of the most substantial buildings.

The changes in the method of heating and ventilation are giving satisfaction. The foul air is now taken from the bottom of the ward, and the pure air introduced near the ceiling. This method has, so far as tried proved superior to any other, where forced ventilation is employed, and was first introduced in Utica, in 1853.

Many outside changes and improvements have been made and more are called for.

NOVA SCOTIA. *Report of the Nova Scotia Hospital for the Insane*: 1872. Dr. JAMES R. DE WOLF.

There were in the Hospital, at date of last report, 252 patients. Admitted since, 77. Total, 329. Discharged recovered, 39. Improved, 4. Died, 27. Total, 70. Remaining under treatment, 259.

The most noteworthy event recorded in the report is the completion of the Asylum, in accordance with the original plan. This gives room for ninety more patients, and will largely increase the facilities for classification. The subject of "Amusements," "Industrial Pursuits," "Boarding Out of Patients," "Insane Convicts," and "Premature Removals," are treated of by Dr. De Wolf.

NEW BRUNSWICK. *Report of the Provincial Lunatic Asylum*: 1872. Dr. JOHN WADDELL.

There were in the Asylum, at date of last report, 246 patients. Admitted since, 101. Total, 347. Discharged recovered, 57. Improved, 10. Unimproved, 9. Died, 28. Total, 104. Remaining under treatment, 243.

REPORTS OF BOARDS OF STATE CHARITIES, TRANSACTIONS OF SOCIETIES, &c.

Ninth Annual Report of the Board of State Charities of Massachusetts: 1873.

This is a large volume of 600 pages, and contains the reports of the Board, of their Secretary, Visiting, and General Agents. A review of the operations of the various State institutions and their financial conditions, is given, and the subjects of pauperism, crime, disease and insanity, and their relations, are discussed.

Regarding future provision for the insane the Board recommends the erection of cheap structures for present use in anticipation of the advances of the future in the construction and arrangement of hospital structures.

We hardly see the consistency of the Board in adopting this last recommendation, in view of the fact that the Association of Superintendents of American Institutions for the Insane, have given this subject the most considerate attention, and by unanimous action embodied their views in a series of propositions on the construction and management of hospitals, which are plain, comprehensive and thoroughly exhaustive. What prospective light these commissioners can hope to receive, and from what source we can not say. Will their proposed cheap structures illuminate them? They can have no serious idea of erecting such structures. It is much more likely a bid for the credit of being economical, and as long as it is only buncombe, we think it will do the insane or the public interest little harm.

Twelfth Annual Report of the Commissioners of Public Charities and Correction: New York, 1871.

The report gives a general view of the workings of the charitable institutions under the charge of the Commissioners of the city of New York, for the year 1870. The number of those cared for in the Hospitals, Asylums, Nurseries, Homes, Correctional Schools, Reformatories and Prisons, amounts to more than 55,000, while some 20,000 others have received relief from the Superintendent of the out door poor. There are five general hospitals for medical and surgical cases, and six special hospitals for specific and contagious diseases. The capacity of the general hospitals is for 2,480 beds, and of the special hospitals 943 beds. The capacity of the insane asylums, is for 1,400 patients, and since this

report was issued the new asylum on Ward's Island, has been completed, and now contains about 600 patients. At the Morgue 214 bodies were received, of which 127 were identified by their friends. The examining physician reports 518 persons simulating disease to gain admission to the institutions. Two reception hospitals, and an ambulance corps, complete the system of relief for street casualties, and the number of persons wounded or taken seriously ill in the streets, and conveyed to the hospitals or to their homes, by this organization during the year, was 1,566. By the appointment of ward physicians, continuous medical care is given gratuitously to all who are not able to pay for such attention. The expenses of the department for the year were about \$1,800,000. If to this large sum we add what is given annually to the charitable institutions, which are not under the control of the Board we can form some idea of the sum appropriated for the care of the sick, unfortunate and criminal classes of that populous city.

Report of the Board of State Commissioners for the General Supervision of Charitable, Penal, Pauper, and Reformatory Institutions of Michigan: 1873.

This is the first report of the Board, which was created by an act approved April 17, 1871. They find much to commend in the administration of the institutions which have been placed under their supervision, and great encouragement in their labor, from the fact, that their own investigations and the reports of the penal institutions fully prove, that though the State is rapidly increasing in population and wealth "crime in our midst has steadily lessened." The Board makes the following definite recommendations.

1. The establishment of a Reform School for girls, and if suitable arrangements can be made, in connection with the House of Shelter at Detroit.

2. The creation of intermediate prisons, or work-houses.

3. Some better provision for aiding inmates discharged from the Reform School and convicts discharged from prison to obtain employment.

4. The organization of a Central Board, which shall have the general charge and oversight of all the preventive, reformatory and penal institutions of the State.

5. The establishment of another asylum for the insane.

6. The establishment of a State hospital at Ann Arbor, in connection with the Medical Department of the University.

7. Provision by law for sending dissolute paupers to the intermediate prisons or the Detroit House of Correction.

8. A law requiring sheriffs and poor-house keepers to make uniform records in relation to all persons committed to the jails and poor-houses, in the manner to be pointed out by law.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, at the Seventy-Fourth Annual Session, held at Baltimore, Md., April, 1873.

The article on "Intra-Cranial Necrobiosis, or Softening of the Brain," by Henry R. Noel, M. D., places before the profession, in a very condensed form, what is given by authorities upon this subject, regarding its etiology, symptoms and treatment. The distinction is made by the author between *necrosis*, the term used by Niemeyer, and *necrobiosis*, as used by Virchow to express the same condition. We consider it an important one and fully borne out by the derivation of the words. In softening of the brain, we have a necrobiotic process or the mixture of life and death, side by side, and the tissues waste interstitially, and there is an obliteration of anatomical forms which leaves only a *debris* or wreck of the former form and substance.

This process "is rarely if ever a disease *per se*, but nearly invariably the sequela of other morbid conditions." These are concisely classified.

1. Encephalitis, or direct inflammation of brain.
2. Traumatic encephalitis, without vascular congestion, &c.
3. Thrombosis, from arterial degenerations in aged.
4. Embolism, from cardiac, palmonary, hepatic and renal diseases, and from aneurisms, &c.
5. Chronic otitis by extension of disease to brain.
6. Syphilitic caries of cranial bones, &c.
7. Suppression of cutaneous diseases, eruptions, &c.
8. Pyæmia, metastatic abscesses, &c.
9. Peripheral softening by direct pressure of tumors on brain.
10. Moral injuries, from mental shock; mental depression; overworking and under-feeding the brain; and from habitual giving away to outbursts of temper.

The symptoms of the disease are those given by Aitken in the article on softening, and the treatment the practitioner is unfortunately obliged to recommend, is simply palliative and expectant.

Transactions of the Medical Society of the State of West Virginia: 1873.

The transactions contain an address by the president, Dr. E. A. Hildreth, treating principally of the legal relations of the profession, concerning collection of debts, quacking and suits for malpractice. In the report of the Committee on New Remedies, by S. L. Jepson, M. D., much attention is given to nitrite of amyl in its therapeutical uses. The article shows considerable research in the literature of the subject. The remainder of the volume consists of the report of committees on medical botany, on topography and epidemic diseases, and on necrology.

Tenth Annual Report of the New York Society for the relief of the Ruptured and Crippled: May, 1873. JAMES KNIGHT, M. D.

This Institution is occupying a most interesting and useful field of labor, and from the report of its operations is doing a large and constantly increasing good

work. During the past year there have been treated 3,858 out patients, and 290 in patients, making more than 4,000 who have enjoyed the advantages of treatment. Of this large number 81.5 per cent. were relieved and discharged, 16.7 per cent. continue under treatment, 1.6 per cent. were incurable, and 2 per cent. died. The expenses of the Institution, exceed \$40,000 annually. A large portion of this sum is expended for surgico-mechanical appliances, as trusses, bandages, lace stockings, and apparatus for the cure of spinal diseases, and other deformities. By this means many who would otherwise be dependent paupers, are enabled to earn their own livelihood, and are relieved of their sufferings and disabilities.

First Annual Report of the Roosevelt Hospital, 1872. Dr. HORACE PAINE.

The Hospital was opened in November, 1871, and till January, 1873, 730 patients had been received. Of this number 305 were discharged cured, and 217 improved, 158 paid full or part board, and 572 were entirely free. Twenty-three capital operations were performed within the year, and there were only two deaths, a result attributed in large part to the purity of the air of the wards, from the perfection of the ventilation. It is highly gratifying that such marked success has attended the attempt to solve this difficult problem of thorough ventilation of hospital wards.

BOOK NOTICES.

The West Riding Lunatic Asylum Medical Reports. Edited by J. CHRICHTON BROWNE, M. D., F. R. S. E. Vol. III.

This is the largest volume which has yet appeared and contains fourteen articles, five of which are by the present medical staff of the Institution. Several are

from the pens of distinguished men, who recognize the importance of a work undertaken in the interest of true medical science. "The firm conviction which is entertained that a sound system of mental hygiene and improved methods of treating mental aberrations, are among the most pressing wants of the day, and that these may be reached by patient study and research has animated and directed the work which is here recorded, and will continue to stimulate to further diligence and exploration." A large amount of material was necessarily left out of the present number. Professor Turner, of the University of Edinburgh, contributes an article upon "The Convolutions of the Human Brain considered in Relation to the Intelligence." Professor David Ferrier, in "Experimental Researches in Cerebral Physiology and Pathology," presents several experiments made by applying the electrodes to different portions of the brain of animals. From these he draws the broad conclusion that the anterior portions of the cerebral hemispheres are the chief centers of voluntary motion and the active outward manifestation of intelligence.

His experiments also sustain the views entertained by Dr. Hughlings Jackson, regarding the Pathology of Epilepsy, Chorea and Hemiplegia, the proximate causes of which, as he supposes, are "discharging lesions of the different centers in the cerebral hemispheres." In his articles on the Investigation of Epilepsies this term is defined. Two kinds of functional change of nerve tissue are recognized; one in which it is actually destroyed, and its function lost. In the second, it is unstable; it energizes too much—it discharges on slight provocation. This pathological change is designated by the term, "discharging lesion."

Dr. Major presents the results of observations on the "Histology of the Brain in the Insane." His experiments cover three forms of disease of the organ, viz.: chronic brain wasting, senile atrophy, and general paresis; although a number of definite lesions and distinct pathological changes are found in each instance, the Doctor acknowledges himself obliged in candor to record, that his labor has been a failure, in that he has not discovered such constant changes as would mark infallibly the nature of the affection.

Dr. Chrichton Browne gives a series of interesting observations on the use of "Nitrite of Amyl in Epilepsy." He was led to the use of the remedy by studying its effects upon the circulation, and was particularly struck by the difference between paralytic and epileptic patients as regards their susceptibility to the action of the nitrite. In cases of epilepsy, the rapid and marked change in the pulsation and respiration, as also the large area of blushing was something remarkable. "Respiration was invariably quickened, the pulse was accelerated, and vascular tension diminished, and at the same time the mental powers were stimulated."

Reflecting upon these phenomena, and being disposed "to lay it down as an inflexible rule, that in all cases of epilepsy in which loss of consciousness occurs at the commencement of the fit, that there is an arrest of the blood supply to the brain in consequence of spasmodic contraction of the intra-cranial vessels," the Doctor drew the conclusion that if the nitrite could be administered before the fit, and especially after the occurrence of the aura, the convulsion itself, might be averted. The remedy was employed successfully in warding off the fit, both in the human subject and in a rabbit, in which the convulsive attack had been induced by Professor

Ferrier in his experiment previously alluded to. The detail of these investigations is interesting and certainly induces the belief that the nitrite of amyl will prove a valuable remedy in the treatment of epilepsy. Its success in averting the fit gives ground for hope that the epileptic habit may be broken up, or at least interrupted, and thus a most important point will be gained, looking to the future treatment of the disease.

Ten cases of *status epilepticus* are reported as treated with the same remedy, eight terminated in recovery and two died. The testimony from its use in this form of disease is strongly in its favor. He says "it operates with a directness and certainty such as I have never witnessed with any other remedy, and cases which I should formerly have despaired of, I shall now regard with less apprehension." Another paper is promised in continuation of the same subject, and we shall look for it with great interest.

We can not speak in detail of all of the articles contained in the volume; but we are unwilling to close this review without noticing the two articles of J. Hughlings Jackson on "Localization of Movements in the Cerebral Hemispheres," and "On the Anatomical, Psychological and Pathological Investigation of Epilepsies." The one of Dr. Wilkie Burman "On Heart Disease and Insanity," of Dr. T. Clifford Allbutt "On the Obscure Neuroses of Syphilis," and of Dr. Henry Sutherland on "The Change of Life and Insanity." The statement in the preface is more than borne out by the perusal that "there can be no presumption in believing that the volume contains some important contributions to medical literature."

Should the same spirit of research and investigation animate the medical officers of institutions for the insane generally, facts in the physiology and pathology of the

nervous system would be established, and a rational system of treatment inaugurated, which would take the place of that founded too largely upon ignorance and empiricism.

Body and Mind ; An Inquiry into their Connection and Mutual Influence, specially in Reference to Mental Disorders. [An Enlarged and Revised Edition, to which are added Psychological Essays.] By HENRY MAUDSLEY, M. D., F. R. C. P., Professor of Medical Jurisprudence in University College, London. McMillan & Co. 1873.

The main part of the work is composed of three Goulstonian Lectures delivered by Professor Maudsley, in 1870, before the Royal College of Physicians of London. These essays have been so long before the public, and have been received with such marked consideration that it will not be deemed necessary to give them a lengthy or critical review. They have to a great extent become already incorporated into the literature of the profession, as scarcely a medical volume or address has been presented, since their publication, which has not drawn more or less from them in the way of criticism or commendation.

That Professor Maudsley has added to the methods of research in the investigation of mind and mental phenomena, by this synthetical process of reasoning, by tracing the ever-changing, but constantly intimate relation between the mind and the body, both in a state of health and disease, can not be doubted. The first section is devoted to a general survey of the physiology of mind, to an exposition of the physical conditions of mental function in health. In the second lecture are sketched the features of some forms of degeneracy of the mind as exhibited in morbid varieties of the human kind. * * * In the third lecture, which

contains a general survey of the pathology of mind, are displayed the relations of morbid states of the body to disordered mental function." These lectures are followed by an address delivered before the Psychological Section of the British Medical Association in 1872, entitled "Conscience and Organization." This was published in the *Journal of Mental Science*, for October, 1872, and was noticed in the April number of the JOURNAL OF INSANITY. It is intended to show that conscience is a mere function of the physical organization—a logical conclusion from the materialistic view that mind is a mere secretion of the brain. Part II. contains four essays: "Hamlet," "Swedenborg," "The Theory of Vitality," and "The Limits of Philosophical Inquiry." These are reprints from the *Westminster Review*, the *British and Foreign Medico-Chirurgical Review*, and the *Journal of Mental Science*.

Insanity in its Relation to Crime. W. A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System, and of Clinical Medicine, in the Bellevue Hospital Medical College. D. Appleton & Co., New York: 1873.

The text of this monograph is the recital of three cases of insane homicides, those of Lèger, Jobard and Jules. They have been reproduced in works upon insanity so often, that it is only necessary to refer to them here. The first was executed, the second recommended to mercy, and the third acquitted upon the ground of insanity. A commentary is made upon them, and the different degrees of punishment awarded to each is considered conclusive evidence of the injustice committed under sanction of law. The first trial in which the accused was convicted and executed, occurred in 1824, now fifty years ago, and the other two, twenty years ago. No allowance is, however, made by Dr.

Hammond for the lapse of time, for the change in public opinion, or the progress of science in the specialty of insanity. It is more than probable that if cases of a later date had been chosen, less inconsistency would be found in the results. The sentiments expressed in the work are of the same character as those which have recently appeared in the editorial columns of the *London Times*, and which have been put forth by certain French writers, and we meet again with the same arguments, and with the same examples, of the wild beast and the mad dog. It is the old story which has its periodic repetition, but does not gain believers.

We must insist upon Dr. Hammond's telling the facts regarding the cases alluded to. On page 68 he asserts that Montgomery was convicted of murder in the first degree and duly sentenced to be hanged. He was never sentenced.

The commentary consists of specious reasoning regarding the nature of crime and the scope of law, in which the idea of justice in law is entirely ignored and the individual is not allowed any right which society is bound to respect. Might in this case makes the right.

"What society requires is protection, and it has no more business as such with abstract justice than it has with any other bit of philosophy."

The safety of society is, so far as we can judge from the argument adduced, the only thing to be considered in the formation of the law, or in the punishment of the offender.

Dr. Hammond then endeavors to show that the interest of society demands the punishment of the insane homicide, and in doing so brings forward two examples of the operations of law, the one that of the person who is punished for the violation of a law, the very existence of which is unknown to him. In this case we

have a responsible member of society, whose duty it is to inform himself of the laws of the government under which he lives. If ignorance exists it is from neglect of duty, not from inability to know the law, because disease has destroyed the mental perception. Again, the second case quoted, that of attainder for crime has always been considered a blot on the escutcheon of any nation and a relic of a barbarous despotism, not a measure necessary for the preservation of society. If all the laws which have been founded in injustice and have existed by force and wrong, were to be taken as precedents, we would soon return to the condition from which society has been elevated by a Christian civilization.

The following conclusion is drawn from the two examples quoted.

“Looking at the matter, therefore, from a similiar point of view no valid argument can be adduced against the punishment of the insane, even though they be morally irresponsible for their acts by reason of delirium, dementia, morbid impulse, emotional insanity, or any other form of mental aberration.”

“But the individual who has sufficient intelligence to know that pointing a loaded pistol at a human being, cocking it and pulling the trigger, are acts which will cause the death of the person, against whom they are directed, should be subjected to the same punishment for a homicide as would be awarded for a like offence committed by a sane person.” “An insane person deprived of his liberty on account of a murder should never be allowed to go at large. The danger of a relapse after a cure is always great, and a shrewd lunatic may very readily deceive those about him into the belief that he is cured, when in fact, he is only planning his escape from durance.” We have made these few

quotations as showing the conclusions arrived at, after his mature consideration of the subject, and which are sent forth to influence the mind of the judge and jury in deciding upon the responsibility of the insane. It can hardly be believed that the sentiments expressed above should be those of Dr. W. A. Hammond, the expert in insanity, through "whose testimony, ophthalmoscopes and paraphernalia, McFarland was acquitted," and, still walks the streets without fear of imprisonment in an asylum, and General Cole in whose case he also figured, transacts the business of life though he could "cock a pistol and pull a trigger," with a full knowledge of the consequences of the act.

Clinical Electro-Therapeutics, Medical and Surgical. [A hand book for Physicians, in the Treatment of Nervous and other Diseases.] By ALLEN McLANE HAMILTON, M. D., with numerous illustrations. D. Appleton & Co., New York: 1873.

The author states in his preface, that he has endeavored to make this a practical work, by avoiding as many confusing theories and technical terms as possible, and endorses electricity only as a very valuable remedy in certain diseases, and not as a specific for every human ill, mental and physical. As a therapeutical mean in nearly all forms of nervous disease, electricity is invaluable. New modes of treatment which have not had the test of experience have not been noticed, but the book is a compilation of well tried measures and reported cases. A full description, with plates, is given of the most approved form of electrical appliances.

The Cerebral Convolutions of Man. [Represented according to original observations, especially upon their development in the fœtus, intended for the use of Physicians.] By ALEXANDER ECKER, Professor of Anatomy, in the University of Friburg, Baden. Translated by ROBERT T. EDES, M. D. D. Appleton & Co., New York: 1873.

This volume is given to the profession in accordance with a long cherished plan of the author "to give a summary description of the cerebral convolutions for the use of physicians." The work is thoroughly done and will prove of great service to those especially interested in the topography of the brain convolutions. It will furnish a standard nomenclature of the different divisions of the cerebral mass, which can be employed, alike by students and authors. It is handsomely printed and bound.

Report of the Columbia Hospital for Women, and lying-in Asylum, Washington, D. C. By J. HARRY THOMPSON, A. M., M. D., Surgeon-in-Chief, with an appendix. Government Printing Office.

This report gives a general history of the operations of the Hospital from its organization in March, 1866, to July, 1872, a period of six years. It was established by private enterprise, but aided by the Government, as fifty beds were furnished by the Surgeon-General upon the order of the Secretary of War. It has since received annual appropriations from Congress. During this time 11,455 patients have been under treatment, and over seven hundred operations have been performed; a large part of them for the relief of accidents, occurring in parturition. The report of Dr. Thompson is supplemented by those of Dr. F. A. Ashford, on "Diseases of Females," of Dr. Samuel C. Busey, on "Diseases of Children," and of Dr. D. Webster Pren-

tiss, on "Diseases of the Eye and Ear." It is a large volume, of more than 400 pages, and is fully illustrated by appropriate plates. The Government places the profession under great obligations by furnishing such works, giving the results accumulated in the hospitals under its charge, not only in the time of the war, as in the Medical and Surgical History of the Rebellion, but in the quiet days of peace. .

Lectures on Madness, in the Medical, Legal and Social Aspects.

By EDWARD SHEPPARD, M. D., Professor of Psychological Medicine in King's College, London, and one of the Medical Superintendents of the Middlesex County Lunatic Asylum, at Colney Hatch. LINDSAY & BLAKISTON, Philadelphia: 1873.

This is a series of seven lectures by Professor Shepard, delivered before the Medical Students of King's College, London. They are intended to merely outline the subject treated of and not to serve as an exhaustive text-book. There are many things to commend in the work. It is written in a pleasing style, which would at once attract attention, and recommend the subject to the student. They are calculated to induce thought and lead to further investigation. One important feature is the simplicity of the classification adopted, and the great freedom from confusing technicalities. The views entertained regarding insanity, its causes, divisions and treatment, are, in the main, correct and judicious. It will well serve the purpose for which it was intended.

Wharton and Stillé's Medical Jurisprudence. Third Edition.

KAY & BROTHER : Philadelphia, 1873.

In the number of the JOURNAL, for January, 1873, we noticed the reception of the first volume of this work upon "Mental Unsoundness and Psychological Law." We have now before us the remaining two

volumes of the work. They include the subjects of Parturition, Sex, Poisons, Wounds, Malpractice, Homicide, &c. The authors upon these subjects are Samuel Ashhurst, M.D., of Philadelphia, Robert Amory, M.D., Brookline, Mass., Wharton Sinkler, M.D., of Philadelphia, Francis Wharton, L.L.D., of Philadelphia.

The work is brought down to the present time, and includes the most recent and important legal decisions. The names of the authors furnish a satisfactory guarantee as to accuracy and scientific character. It has a general index by sections, an alphabetical index, and the names and section are given wherever cases have been referred to. This greatly enhances its value as a book of reference. It must become the standard authority upon the subjects treated of, before the courts.

PAMPHLETS AND REPORTS.

Address before the Medical Society of the State of California.
By Dr. G. A. SHURTLEFF.

The subject of this address, is the "Medical Jurisprudence of Insanity." The different theories entertained by various writers, and also the author's view of the connection between mind and matter, are briefly stated. This is followed by a reference to the most general anatomico-psychological division of the brain.

Dr. Shurtleff's comments upon the legal relations of insanity, upon expert testimony and the manner in which it is taken by courts and counsel, and which so often brings it into disrepute, and defeats the ends of justice, will meet the approval of the profession generally.

Law and Intelligence in Nature. By A. B. PALMER, A.M., M.D., Professor of Pathology and Practice of Medicine in the University of Michigan, and Bowdoin College, Maine.

Remarks on Stricture of the Urethra of Extreme Calibre. By F. N. OTIS, M. D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, &c., &c. [Reprinted from the *New York Medical Journal*, February, 1872.]

An Account of the Cholera at Nashville in the year 1873. By W. K. BOWLING, M. D.

Infant Feeding and its Relation to Infant Mortality. By E. S. McCLELLAN, M. D., Professor of Physiology and Hygiene, in the New York Free Medical College for Women.

Memorial of the American Medical Association, with regard to the Rank of the Medical Corps of the United States Army.

Some Conclusions in Regard to General Paresis, with a report of a case under observation. By HORATIO R. BIGELOW, of Boston, Massachusetts.

Annual Address delivered before the Madison County Medical Society. By the President, W. H. CARPENTER M. D., of Oneida, New York.

On the Connection of Bright's Disease, with changes in the Vascular System. By A. L. GALABIN, M. A., M. D., a thesis for the degree of M. D., Cantab.

SUMMARY.

NOTICES.

Dr. H. M. Bassett, First Assistant of the Iowa Hospital for the Insane, at Mount Pleasant, has been appointed Superintendent in place of Dr. Mark Ranney, resigned.

—Dr. George Syng Bryant has been appointed Superintendent of the First, Dr. William Black of the Third, and Dr. C. C. Forbes of the Fourth Kentucky Lunatic

Asylum. Dr. Rodman continues as Superintendent of the Second Kentucky Asylum.

—Dr. William S. Whitwell has resigned the position of Third Assistant Physician of the New York State Lunatic Asylum, at Utica, and gone to Germany to pursue his medical studies. Dr. Willis E. Ford, of the Staff of Charity Hospital, New York, has been appointed to fill the vacancy. Dr. Alfred T. Livingston, of Buffalo, has been appointed Fourth Assistant Physician.

—Dr. Thomas Dudley, First Assistant Physician of the Eastern Kentucky Lunatic Asylum, now the First Kentucky, committed suicide on the 18th of July by taking morphia. Dr. Dudley had been connected with the Asylum for seventeen years. His loss was deeply felt, not only by his immediate associates in the Asylum and the patients under his charge, but also by the profession of Lexington. The large attendance at the funeral was a fitting expression of the regard for the deceased and of sympathy with his friends. Resolutions embodying the kindest sentiments, were passed by the physicians of the city, and by the Board of Commissioners of the Asylum.

—Dr. Benoit Morel, the distinguished French alienist, recently died, in the sixty-fourth year of his age. He is well known to the members of the specialty, by his works upon insanity: the "*Etudes Cliniques, sur les Maladies Mentales*," and the "*Médecine Légale des Aliénés*," though still incomplete, have fully established the author's reputation. He has also written several monographs of note. From 1856, he was the Superintendent of the St. Yon Asylum, at Rouen. Here he labored successfully and efficiently in his chosen field.

—Dr. Thomas S. Kirkbride, of the Pennsylvania Hospital for the Insane, having declined to act as Commissioner, to select a site for the new Insane Asylum to be located in the northwestern section of the State, Dr. W. S. Corson, of Morristown, was appointed in his place.

—Dr. Mark Ranney, Superintendent of the Hospital for the Insane at Madison, Wis., is lecturer upon Insanity in the Medical Department of the Iowa University.

—Dr. Lyman Congdon, of Syracuse, has been appointed Superintendent of the Inebriate Asylum, at Binghamton, vice Dr. D. S. Dodge, resigned.

—Dr. William A. Hammond has resigned his Professorship of Diseases of the Mind and Nervous System, in the Bellevue Hospital Medical College. The *Journal of Psychological Medicine*, of which he was the editor, was discontinued by the publishers some time ago.

—Dr. Gray's paper on the "Pathology of Insanity," will appear in the January number of the JOURNAL, as the illustrations were not ready for the present issue.

—The State Board of Charities of New York, have, in accordance with Chapter 521, Laws of 1873, defining the powers and duties of the Board, licensed the following named institutions to receive and care for insane patients:

Providence Lunatic Asylum, Buffalo.

Brigham Hall, Canandaigua.

Marshall Infirmary, Troy.

Dr. Kittridge's Home for Nervous Invalids, Fishkill.

Sanford Hall, Flushing.

Dr. Choate's Home, Pleasantville.

ECHO SIGN IN EPILEPSY.

EDITORS JOURNAL OF INSANITY:

I lay before your readers a brief account of an instance, which, so far as I know, is unique, of the phenomena of the echo sign as set forth in the paper of Dr. Echeverria, and published in the last number of the JOURNAL.

A young printer employed in this city is an epileptic, and frequently has a fit while composing which results in making *pi* of what he has in his stick. A short time since he had one of his attacks, and fortunately the matter was preserved, and a proof taken as follows:

The annual meeting of the County Convention of Young Men's Christian Associations, was a social occasion, afforded for the officer as there there choredess:—

For the purpose of comparison, I append the sentence as it should have been set up, and as it finally appeared in the paper:

The annual meeting of the County Convention of Young Men's Christian Associations, was held at Westborough, yesterday. Officers for the ensuing year were chosen as follows:

This is interesting as showing the time that elapsed, and especially the number of movements that were executed between the beginning of the nervous disturbance and the entire loss of consciousness. I do not know whether he is aware of any aura or not.

Very truly yours,

B. D. EASTMAN,

Superintendent Worcester Lunatic Hospital.

“AN ACT REGARDING THE VARIOUS CHARITABLE INSTITUTIONS IN THIS COMMONWEALTH.” (Kentucky.)—By this Law, the number of asylums in the State has been increased from two to four, which are named in numerical order.

This sudden multiplication of institutions has been effected by changing the legal title of the "Institution for the Education and Training of Feeble Minded Children," to that of the Third Kentucky Lunatic Asylum, and of the "State House of Reform for Juvenile Delinquents," to that of the Fourth Kentucky Lunatic Asylum. The same law also directs the reception of juvenile delinquents at the same institution as before, and that after the three above-named asylums are filled, the inmates of the Idiot Asylum shall be returned to their friends, where they are able to care for them, and in the case of paupers to the various counties of their residence, where a committee shall be appointed. The State makes an appropriation of \$75 per year to be paid the person taking care of and supporting the idiot. We regret that the State of Kentucky has adopted the plan of farming out the unfortunate. This is indeed a retrogressive step, and a return to a system which was for so many years a reproach to the older Eastern States.

The law makes provision for the appointment by the Governor, by and with the advice and consent of the Senate, of a Board of nine Commissioners for each institution, who are required to report to the Legislature, through the Governor, and who are to appoint the matron and the subordinate employes. It also provides that the Governor may appoint the medical officers and steward, by and with the advice and consent of the Senate, but he may remove them for causes deemed sufficient by him. The steward is also required "to report to the Governor monthly, a statement in writing of his official acts to date, the condition of the farm and garden, and the number, character and condition of the stock under his care and control."

This law is an anomalous one and has evidently been

drawn without reference to precedent or the teaching of the past, as presented in the resolutions of the Association of Superintendents, regarding the organization and management of asylums. The idea of making a State officer, a non-resident and without practical knowledge of the subject, absorbed in the multifarious duties of his gubernatorial position the really responsible head of the various asylums of the State, and of requiring him to receive a monthly statement of the acts of the steward in the detail of purchases, and numbering of cattle and swine, is as absurd as original. This mixture of responsibility, and appointing power would present a ludicrous view, were it not for the interests at stake, that of the charitable institutions of a great State. The law upon its face presents so many contradictions and absurdities, that we can only predict its failure. It is an unfortunate feature of the law, that chronicity of disease is made a distinguishing point of difference in the institutions, as the Third and Fourth Asylums are to receive the chronic insane, from the State and from the other asylums, and that they are to be intermingled with idiots, imbeciles and juvenile delinquents.

By this act, the law passed in February last by the same Legislature, authorizing the erection of a Third State Asylum was repealed.

OBITUARY.—Full of years and of honors, Moritz Heinrich Romberg died on the 16th ult., at Berlin, of cardiac disease, under which he had labored for some years, and the symptoms of which had become more serious during the last three months. Romberg was born at Meiningen on the 11th of November 1795, and was consequently in his 78th year at his death. He very early in his professional life devoted himself to the study of nervous diseases as the great object of his life, and his first publication on this subject was a translation, with annotations, of Marshall's "Anatomy of the Brain in Mania." The researches of Sir Charles Bell filled

him with enthusiasm, and he also translated this great work in 1831 for the use of his German professional brethren. With the exception of an edition of Albertini's "Opuscula Medica," which he edited, a couple of Reports on Cholera, in which he had a large experience, and some fugitive articles in medical journals, all Dr. Romberg's publications had relation to his favorite subject, and may be said to have culminated in his celebrated "Lehrbuch der Nervenkrankheiten des Menschen," which was published in three parts in 1840, '43, and '46, and has passed through three editions, the last of which was published in 1857. This work was translated into English for the Sydenham Society by Dr. Sieveking in 1853. Thus the name of Romberg has now long been familiar to medical inquirers, and his memory deserves to be held in special respect by all British medical men;—first, for the upright honesty of his character, which led him always to acknowledge literary and scientific obligations where they were due; second, for the peculiarly practical character of all his works; third, for the strenuous manner in which he warned against a tendency, even more prevalent now, to base the study of pathological phenomena on the results obtained in the test-tube, or by the scalpel and microscope, to the exclusion of the only true guiding principle to be found in physiology alone; and last, not least, for the strong predilection which he has always shown for the physiologists and pathologists of Britain.—*Edinburgh Medical Journal.*

PROF. ROKITANSKY.—This distinguished ornament of the Vienna Medical School has announced to the Professoren-Collegium that next year he will have attained his seventieth year. According to the regulations he should then retire from his professorship, and be placed on the pension-list. It seems, however, that seeing the great loss his retirement would inflict on the Vienna School—the founder of which he may be almost considered—an effort will be made to have his case regarded as an exceptional one as long as his present good health and teaching power continue.—*Medical Times and Gazette.*

AMERICAN JOURNAL OF INSANITY, FOR JANUARY, 1874.

PATHOLOGY OF INSANITY.*

BY JOHN P. GRAY, M. D.,
Superintendent of the New York State Lunatic Asylum.

It is well known to the Association that for several years past we have been engaged in pathological investigations, and more recently, in special microscopic work. It is not my purpose to give, in any detail, what has been done, but rather, a brief summary of some points of interest. A large number of autopsies have been made, and the brain and portions of the spinal cord have been microscopically examined, in many cases, embracing those of every form of insanity, including general paresis and epilepsy. We have now a large number of microscopic slides of nervous tissue, and a large collection of photo-micrographic negatives, and I bring to the attention of the Association, in the portfolio here presented, a series of photographs taken from the specimens mentioned, accompanying each of which is a descriptive text.

For the sake of conciseness, in this brief synopsis, I make no allusion to the appearances of the membranes,

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Baltimore, Md., May, 1873.

choroid plexus, ventricular lining or the brain itself, which are obvious to the naked eye, and pointed out by authors, generally, in autopsic history, although they have been minutely recorded in each case, and will hereafter be considered in regard to histological structure. These investigations have been commenced with the purpose of studying especially the character and nature of any deviation, appreciable only by the microscope, that might originate in the fundamental structure of the brain, in the insane. We have also been particularly desirous of ascertaining if any distinct special morbid change could be detected in those instances where the ordinary post-mortem description of the membranes and cerebral tissue represent them as sound in their intimate organic structure.

On comparing the various alterations displayed by the cases studied, it seemed to be a phenomenon of quite regular occurrence that the morbid process affects in the beginning and in a general manner the central elements, viz., that the nerve cells and neuroglia undergo changes in their intimate composition and arrangement, before the integrity of the conducting elements of nerve fibre become notably impaired.

The increase of interstitial amorphous matter between the fundamental nerve elements, has been prominent in every case, and, while the connective fibres have been multiplied considerably beyond their natural degree, the scarcity or complete absence of connective nuclei has also been no less constant.

In chronic mania and dementia the increase of interstitial, granular, amorphous matter and connective fibres, or, in other words, the hyperplasia of neuroglia, both in the grey and white substances has been characteristic of the disease, reaching the highest limits ordinarily in the grey matter and appearing more conspic-

uously in the anterior than in the posterior regions of the brain. The alteration has displayed itself in some places in close connection with the capillaries; generally, however, the degeneration has originated in localized regions, distinctly parceled out as it were, from the rest of the cerebral tissue, circumscribed in a cystic cavity, formed by condensed minute connective fibres. These isolated masses are constituted of a granular and friable matter becoming semi-transparent in its advanced stages, and in some cases converted into a serosity.

The granulations which constitute these morbid products would not seem to be fatty, as they are neither dissolved by ether, chloroform or the alkaline solutions, and become darker and more distinct when treated by acetic acid, and while preserving their solid form they do not exhibit a homogeneous mass. The study of these developments would lead to the conclusion that they take their origin in the interstitial elements of the nerve tissue, and that in their growth they determine, through a merely mechanical compression, the reabsorption of the nerve cells and fibres. The cavities in which they are contained vary in size from that of the nuclei of multipolar cells to that which can be seen by the naked eye, and constitute the pisiform cavities which give to the brain sections in cases of chronic insanity, the gruyere cheese appearance described by French alienists. That such pisiform cavities may occasionally result from minute capillary hæmorrhages is a well acknowledged fact. Then the surrounding tissue of the cavity displays a peculiar discoloration, changing from yellow to a dark rusty brown or ochre color, due to infiltration of the coloring matter of the blood. The cavities here described exhibit no such tint permeating the surrounding tissues, nor are they in direct connection with the capillary vessels, as the cysts proceeding

from old apoplexies always are. In the condition under consideration the brain elements disappear by reabsorption, in scattered points, under a circumscribed necrobiosis originating purely from local conditions of the morbid process, developed in the brain. Be this as it may, it seems evident that such isolated absences of tissue throughout the cerebral hemispheres, as above described, can not be regarded as a consecutive effect of distant lesions. How much share these broken connections between the perceptive brain cells, and those of the peripheral part of the special senses take, in the causation of the hallucinations and other strange sensorial phenomena, peculiar to insanity, is indeed difficult to determine, although the fact appears worthy of notice in this special connection.

The trouble which brings about the alterations in the cerebral tissue in general paresis, it is acknowledged, originates mainly in the vascular system, as has been shown by the researches of Virchow, Westphal, Salamon, Lockhart Clark, Sankey, and others, and to this origin must be ascribed the epileptiform symptoms ordinarily attending general paresis, and deriving their source in local disturbances of the cerebral circulation. The change begins in the adventitious sheath of the arteries and veins, the arterioles and larger capillaries, first described by Virchow and Robin, the so-called lymphatic space of His which becomes distended in a small portion of its trajet, sometimes uniformly around the minute vessel within, at others bulging out laterally, the enlargement thus produced being filled with lymph, granular cells, and hæmatic crystals or granulations. More generally the vessel is twisted or elongated, and exhibits a fine fatty degeneration of its coats which are often torn asunder, allowing the blood to escape into the lymphatic surrounding sheath where it

coagulates and ultimately undergoes a fatty change. The nervous elements in the vicinity of the blood-vessels are also involved in their structure and they equally undergo an alteration characterized by a multiplication of the connective fibres and molecular granulations. To such a proliferation of connective elements is due the peculiar firmness and pellucid appearance with change of color displayed in the grey substance, and which Baillairger (*Annales*) has described as one of the characteristic pathological changes of the brain in general paresis.

The condition of the brain in epileptic insanity and especially the alterations in the medulla, agree in appearance and character with those pointed out and described by Dr. Echeverria in his work on epilepsy.

The instance of syphilitic insanity, of which several photo-micrographs are presented in the portfolio, adds further proof to the fatty degeneration which constitutional syphilis brings about in every tissue.

A fact which seems of the utmost importance is the similarity of histological changes attending the different forms of insanity, as represented in the photo-micrographs, and, indeed, in all the cases which have fallen under observation. If such regularity is displayed in future investigations, as I am strongly led to believe will be the case, this fact will practically confirm the principle, that, in insanity, we have to contend with only one disease, manifesting itself under different phases in its progress and results. The correspondence between degenerations of the cortical substance and in the central ganglia pointed out in France by Luys, Laborde, and Charcot, and in this country by Echeverria, has found further confirmation in these researches; whereas, lesions in the structure of the third left convolution, as Bouchard,

Echeverria, Batty Tuke, and others, have already shown, have not necessarily involved the existence of aphasia or amnesia. The importance attached to this subject has led me in every instance to direct investigation particularly to this region of the brain. I simply state here the result, hoping to treat this question at some future time, when the material may be sufficiently abundant to determine the exact value of the ingenious theory so confidently put forth by Broca.

The capillary system has participated in the morbid process in every instance, but it has seemed to be primarily affected, particularly in general paresis and epilepsy. The nature of the alteration has been ultimately atrophic in every case, that is, resulting in the disappearance of central nerve elements, to wit: nerve cells and fibres, with a remarkable hyperplasia of amorphous matter and connective fibres. In acute cases the involvement of the fundamental elements in the morbid process has appeared to have taken place rapidly and without any observable effusion of lymph throughout the tissue. Such a morbid process can not be looked upon as of an inflammatory character, for no proliferation of capillary vessels, or the so-called inflammatory corpuscles of Bennett, have occurred. The trouble here has rather betrayed itself in a condition of intense irritation, exhausting the power of the cerebral cells and ultimately bringing on their consecutive necrobiosis. This assumption is perfectly consistent with the phenomena of restlessness and delirium found in acute mania, and is furthermore strengthened by the discovery made by Brown-Séquard, that in cases of paralysis from injury without irritation of the nervous centers the consecutive alterations of nutrition are slow in their progress, while, on the contrary, with irritation of the brain and cord, alterations of nutrition and structural changes supervene rapidly.

The distinction between the appearance of the cerebral tissues, in the specimens presented, of mania and those of general paresis and epileptic insanity, would seem to uphold the separate class assigned to the last two forms of disease in the classification adopted.

Although the cases thus far examined may be regarded as insufficient to establish general conclusions, they go to strengthen the conviction sustained by the laws of general pathology, that insanity is a physical disease of the brain, and that the mental phenomena are symptoms. Further, that the microscope, with patient and close investigation, will continue to disclose structural changes in the cerebral tissue, as marked as those heretofore unsuspected, when examinations were limited to the scalpel and naked eye; and in these investigations, when the entire range of the disease, in every stage of its progress, shall have been brought under the microscope, we may be able to solve the problem of the morbid processes denominated insanity.

Another conclusion to which these investigations would naturally lead, is, that the variety and changes in the predominant symptoms of insanity may acknowledge their cause, not so much in the variety of lesions as in the special parts of the cerebral centers which are morbidly involved in each case; or to bring the idea within narrower limits, that emotional, ideational and motor disturbances, have their foundation in the extent and degree to which the nerve elements that minister to the execution of intellectual and motor acts are involved in the lesion. When the disease reaches its ultimate stage, all distinctions cease, dementia being the same closing stage of every so-called form of insanity.

ON EXPERT TESTIMONY IN JUDICIAL PROCEEDINGS.

BY JOHN ORDRONAU, M. D., LL. D.,
State Commissioner in Lunacy.

There is a growing tendency to look with distrust upon every form of skilled testimony, and to abandon it to the risks of polemical detraction and obloquy. Nor is this strange. Such fatal exhibitions of scientific inaccuracy and self-contradiction as have been presented to us in the cases of Huntington, Cole and McFarland, and later and less excusably still in those of Schoeppe, Mrs. Wharton and Geo. Francis Train, can not but weaken public confidence in the value of all such evidence. If science, for a consideration, can be induced to prove anything which a party litigant needs, in order to sustain his side of the issue, then science is fairly open to the charge of venality and perjury, rendered the more base by the disguise of natural truth in which she robes herself. In fact, the calling of experts has now come to be regarded as the signal for a display of forensic pyrotechnics, beneath whose smoke and lurid glare, law, common sense and unalloyed justice, are swept away in a whirlwind of muddy metaphysics.

It is needless to say that all honest men, laymen and lawyers alike, look upon this as a judicial farce and a degradation of the ethics of jurisprudence, even though technically defensible on the basis of orthodoxy in procedure. But, when anything in law, government or conventional usage has become inherently bad in its essence, as well as in its operation;

when by common consent and impulse, good men unite in its condemnation, then, it is not only absurd, but unjust, to plead prescription in its behalf, or ask the cowardly question of how can we do better without disjoining old rules, and dethroning old idols of professional worship. There is a law of demon-worship—an enslavement to *cultus* everywhere inherent in the human mind, and the conservatism of law tends, unfortunately, but too strongly to confirm the right of the *eidolon specus* to occupy its old throne, simply because no one can remember when it was not king. Its only right is, but too often founded upon the antiquity and passage out of memory of its day of original usurpation.

That these facts, in relation more particularly to expert testimony, are attracting public attention everywhere, and silently preparing the way for some speedy demand upon the law-making power to cast out the old fetich of procedure by which courts are still fettered, is becoming matter of daily observation. And the sign is so good and augurs so well for the redemption of the law from the embarrassing clogs of tradition, that we feel it a duty to hasten the time of this enfranchisement, by bringing the matter forward with all the power of presentation of which we are capable.

In their last annual report to the Legislature, the Managers of the New York State Lunatic Asylum feel themselves called upon to allude to the subject in the following very pertinent observations:

It may not be amiss to observe that this matter of the testimony of experts, especially in cases of alleged insanity, has gone to such an extravagance that it has really become of late years a profitable profession to be an expert witness, at the command of any party and ready for any party, for a sufficient and often an exorbitant fee; thus destroying the real value of the testimony of unbiased experts. Vaunted and venal expertness is usually worthless for

evidence; and yet such testimony is getting to be in great demand. One expert, whether real or assumptive, is set up against another; and finally it will result that, by competition, pretending inexpertness will prevail, by numbers, against the real expertness of those few thoroughly qualified men whose judgment is the mature experience collected from years of daily study and practical observation. Obviously it does not become States, or great tribunals, or public justice, that the testimony which settles matters of weight should be trifled with as it is for an emolument; and experts should only be called, as formerly they were, by the court itself, on its own judgment of the necessity requiring them; and when called at all, they should be the sworn advisers of the *court and jury*, and not witnesses summoned in the particular behalf of any party; nor should they be permitted to receive either fee or reward from any party, but only from the court or the public. Capable judges are competent to say, in any case, whether the court requires the evidence of experts for its information in matters of technical knowledge or science, and also to say who shall be particularly summoned for his acknowledged expertness; and should, therefore, have the control of that sort of testimony, which is only allowable to enlighten the court and jury, and not to be the ordinary captious weapon of attorneys and counselors, nor to be the theoretical, one-sided opinions of sciolists, founded on some hypothetical case which deflects more or less from the actual truth of the real case in question.

That some remedy is called for in the interests of both humanity and justice all are ready to admit, and that the remedy should be as far reaching in its effects, as the disorder it is intended to alleviate, is equally apparent. The difficulty of making any change, however, has been generally over-estimated, from the assumption that it would necessarily derange well-established principles of jurisprudence. But this is a danger more imaginary than real, and like many other figments of the imagination grows smaller the nearer we approach to it. Inasmuch, too, as methods of existing procedure are, and have ever been, in fact, in opposition to established principles in the law of evidence, it is only necessary to return to them, and in the very oppo-

site language of Lord Coke *petere fontes quam sectari rivulos*, in order to solve what has generally seemed a legal enigma. For all writers upon Evidence are forced to call expert testimony an *exception* to the ordinary forms which it assumes before courts, although offering no suggestions towards altering the rules of procedure governing its introduction and rendition. These rules having been originally designed to meet the requirements of ordinary testimony alone, the attempt to adapt this *exceptional* form to the existing practice of Nisi Prius courts has resulted in producing judicial ambiguities and contradictions, such as are to be found in no other department of jurisprudence. It is impossible, in fact, to reconcile the duties of experts, with the position they are constrained to occupy in courts, nor to accommodate the present rules of evidence to the ambiguous phases which theirs assumes.

The most cursory glance shows us that the Common Law procedure relating to the whole field of expert testimony, whether in the method of summoning, of examining, or of presenting such testimony to the jury is paradoxical in principle and self-contradictory in practice. The very term witness, when applied to an expert, is at the start a legal paradox. It owes its origin to the custom of allowing experts to be summoned by either party litigant, and in the exclusive interest of that side from which they either have received, or expect to receive a retainer. Consequently, and in that capacity, they come upon the stand with minds prepared to favor only that view of the case which they are retained to sustain. Being also generally, first consulted in private; hearing only the statements of one side, and thus forming a judgment before coming into court, it is inconsistent with the laws of mental action for them, willingly to recall that judgment, so as to place their

public opinion in direct antagonism to their private, thereby demolishing the case and forfeiting the confidence of those who have given them by their patronage, both a reputation and a fee. Thus fettered on the very threshold of his service by being reminded of what he is expected to do towards sustaining one side, the expert starts under a cloud of suspicion and distrust, which justifies that other and equally absurd though consistent proceeding of the cross-examination of an *expert* by a *layman*. The whole drama is, in fact, a tissue of legal inconsistencies, all springing from that one tap-root of error, viz., the habit of considering the expert as a strictly party witness and allowing him to be summoned as such.

Legally speaking, witnesses are limited to facts observed by them, and while opinions upon such facts may very properly be given in all matters of ordinary observation, *opinions* upon facts never personally observed, or opinions upon facts requiring *special* knowledge to interpret them, constitute, not testimony, but a *quasi-judgment* upon them. The Civil law, with an acumen pre-eminently distinguishing its philosophy, had established boundaries to testimony that have required no sensible change, except in enlargement, to meet the demands of modern society. Wherever, therefore, that majestic system of jurisprudence, which has been a convenient treasure house for even the common law of England to draw from, has been adopted, no contradictions and no ambiguities in the application of expert testimony before courts are known. Under its practice the expert was considered simply as an *amicus curiæ* whose opinion was *ex vi termini* a *quasi-judgment* in the premises. Nor could it be otherwise, for the separation of the *jus* from the *judicium* rendered it quite possible to unite the functions of expert and

judge, without derogating, in the least degree, from the strictest operation of the *jus*, since this latter always furnished the principles by which the *judicium* was to be applied to a given case.*

Whatever may be said in fact of the duty of courts to prevent experts from encroaching upon the province of the jury by pronouncing judgments on issues before them, it should never be forgotten that the calling of an expert to pass upon the merits of an issue joined is an open confession of its incomprehensibility to a jury, and since they can not determine it themselves, do they not thereby ask of the expert, as they do of the court itself under other circumstances, for a ruling or judgment upon that issue? In the one case they ask the court for a ruling upon the *municipal* law applicable to some point; in the other they ask the expert for a ruling upon the *physical* law applicable to some equally dubious point. Is the answer or opinion less a *judgment* when uttered by the expert than when uttered by the judge? One is a minister and interpreter of municipal laws, the other of physical laws, but both are legally, because rationally judges, each in his own province.

In other fields of investigation courts recognize these principles. Thus courts of equity are in the habit of sending issues of fact to be tried before masters in chancery, and their reports are always accepted as preliminary judgments upon the issue tried before them, requiring only the subsequent confirmation of the court to give them plenary authority. A similar rule obtains in many European countries in relation to issues involving the necessity of expert opinions. And in fact this is the only proper solution of the problem; since it is plain that neither under the civil, nor even the common law is the expert regarded as a witness proper, being

*Maynz, *Elements de Droit Romain*. Vol. 1., p. 348.

more nearly a referee and physical juris-consult specially called for this purpose. It is manifestly wrong, therefore, to define his opinion as testimony, when, in truth, it is rather an opinion upon testimony, a judgment upon the physical merits of a state of facts agreed upon.

The expert being in no proper sense of the word a witness, should have his status definitely determined, should be free from alliances with either party, and give his opinions only upon an agreed statement of facts. In other words he should arbitrate and not testify. So long as he is introduced as a party witness, the opposite side have the right to confront and necessarily to cross-examine him, but how unphilosophical, not to say ridiculous even, is the idea of an expert being cross-examined for the purpose of testing his professional knowledge, by a layman. The entire effect and benefit of his participation in any trial is thus mutilated, deformed and nullified by the legal paradox which assumes him to be a witness. Witness to what? His own opinion only.

In whatever direction we look, we see how inevitably these conflicting principles arise from the first departure in recognizing the true position of the expert. Having once been summoned as an ordinary witness by one party, he is fore-doomed to that position throughout his entire service in court; is cross-examined as such—and his opinions before the jury lose proportionally the weight which, but for this, would attach itself to them. No jury can be expected to place absolute confidence in the statement of a witness called exclusively in the interest of one party. They will balance probabilities even in the matter of his *professional* accuracy, whenever his opinions conflict with their own pre-conceived ideas upon the subject. To that ex-

tent, therefore, they will sit in judgment upon his opinion, rather than accept it as a specific adjudication in a matter admitted to be beyond their knowledge and comprehension. Nor is it laying too much emphasis upon the results of such repudiation of skilled testimony to affirm, that it begets an overweening self-confidence in jurors, which is not slow to extend from the opinions of experts to those of the court. Every verdict against evidence, or every analogous omission to apply the principles laid down in a judge's charge, to the case at bar by a jury, are but confirmations of these assertions.

It is from an unwillingness to accord any distinct legal status to experts, after summoning them *eo nomine* before courts, that has resulted the chaotic state of our jurisprudence upon this subject. No chapter in the law of evidence presents more conflicting decisions than this. In fact every court seems to have had some distinct, and the same court at times diverse views upon the character of this form of testimony. Nor is it to be wondered at, since every common law court has persistently insisted in treating the expert as a party witness while seeking his opinion as an impartial judge. The next error has been that of allowing any one to be introduced before a jury as an expert without first putting him upon his *voir dire* to ascertain whether his competency agreed with his pretensions. If anyone, as is now the practice, may be admitted to testify as an expert, then the term is one of multitude and not of exception.

Some idea of the diametrical difference between courts in their opinion of the basis of qualifications in experts, may be had from the citation of two cases only, where in the first one, (*Tullis v. Kidd*, 12 Alab., 648) it was held sufficient that a party had

studied medicine, although he had never practiced it, while in the second (Emerson v. Lowell Gas Light Co., 6 Allen, 146) it was held that a physician who had been in practice for several years, but who has had no experience as to the effects of illuminating gas upon the health when breathed, can not be allowed to testify thereto as an expert; and *experience* in attending upon other persons who, it is alleged suffered by breathing gas from the same leak, is insufficient. This case presents us with a complete illustration of self-contradiction in the form of that logical fallacy known as a negative pregnant. It first lays down the principle that a physician who has had no experience in a certain direction is not an expert *quoad hoc*, and then asserts that one who has had experience in this very direction is equally incompetent *quoad hoc*.

In order to obviate the effects of such contradictions in the law of evidence, it would be well, for it is entirely possible, to remove all experts from the field of testimony and place them in that of arbitration, so far as any particular scientific question is to be decided. For this purpose, whenever such an one arises whose solution is material to the determination of the matters in dispute, let a feigned issue be made upon the point, and referred for judgment, upon evidence agreed upon, to three experts, one to be selected by each party litigant, and the third by the court, such experts to sit and determine at once the question in dispute, and their opinion to be received by the jury as conclusive of the issue tried by them. In this way each party would be represented, just the same as if the expert had been called into court by him, and the evidence on which an opinion is sought being agreed upon, time and arguments would be saved. Nor would there be any necessity either for a direct or cross-examination,

since there would be no *witness* to require such, and the opinion of experts being given upon deliberation, and while they are themselves freed from the vexation of a personal discussion with counsel, would be of a more satisfactory character to all parties concerned by expressing the best possible efforts of an unprejudiced mind.

And with the further view to secure economy in time from the application of these views to practice, counsel desiring to invoke the assistance of experts should be required to give notice to the court and opposite party of such intention, so that the scientific issue upon which their services will be required could be tried in advance, and the ordinary course of judicial proceedings at Nisi Prius not be interrupted by the interpolation of new and exceptional matter. We need not point out how much this would tend to simplify and abridge trials for homicide when the plea of insanity is suddenly sprung upon the court, and an entire shifting of the scenes in the drama of evidence becomes necessary.

We have said nothing about *qualifications* in experts, because that is a matter which it may be assumed every court would see to with more jealousy and vigilance, than if, as at present, each party were allowed to select those experts only who would best subserve their interests. For, whenever expertism shall be known to represent in fact what its name implies in theory, those offering themselves as practitioners in that field, will be careful to formulate only such opinions as will stand the test of future criticism. At present it is the victory of the hour that alone engages the efforts of *party*-experts, many of whom having no reputation to lose, throw themselves recklessly and to that extent wickedly, into the high seats of oracular authority regard-

less of the consequences to the professions which they so often *mis*-represent.

It can not be necessary to enlarge further upon a state of facts like these, which, both in this country as well as in England, casts a periodical shadow upon the wisdom of judicial procedure as the exponent of perfected law. And having traced the evil to its parent source in the erroneous classification of experts among witnesses, no large or disturbing change is required to secure the needed remedy. Let us but remove the cause, and its consequences will die with it. *Cessante causâ cessat effectus*.

ON THE PERIVASCULAR SPACES IN THE NERVOUS CENTERS.

BY THEODORE DEECKE,

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It is well known to those who, in the past ten years, have been interested in the progress of the microscopical anatomy of the nervous centers, that the existence of perivascular spaces, of a system of canals surrounding the vessels which penetrate the substance of the brain, has been a subject of discussion not yet satisfactorily terminated.

Virchow,¹ who first of all touched upon this subject in a paper, "On the Dilatation of Smaller Vessels," gave us the description of a homogeneous tunic, a sheath surrounding the arteries, the veins, the arterioles and ducts even of a capillary character, and observed in the spaces between this adventitious tunic and the walls of the vessels themselves different kinds of cell formations, sometimes simple granulated cells, some-

(1) *Archiv.*, 1851, III.

times transformed into fatty globules intermingled with lymph-corpuscles and various other deposits.

In 1859, Robin,¹ who apparently had no knowledge of the discovery made by Virchow, with the exactness of a genial interpreter, supplied us with an ample description of the adventitia of the cerebral vessels, the contents of the space formed by this involucrum, and his illustrations leave no doubt concerning the correctness of his observations in every respect.

After Robin, 1865, His² took up the question and was the first who applied the injecting method to the examination of these canals. Fromman,³ 1867, called our attention to the contradictions in the observations and conclusions made by His, and considered the so-called perivascular spaces, or *canals outside* the adventitious tunic of Robin, as *artificially* produced by the injected liquid.

Roth,⁴ 1869, observed, in sections made through the hardened brain substance, the existence of fine filaments transversely connecting the brain tissue and the walls of the contracted vessels; and Obersteiner,⁵ 1870, maintaining the views of His, proved the existence of spaces of a similar kind around the nerve tubes as well as the ganglion cells themselves.

The first then, who cleared up these somewhat complicated conditions, was Golgi,⁶ 1871, in his excellent

(1) Robin: Recherches sur quelque particularités de la structure des capillaires de l'encephale. *Journal de la Phys. de l'homme et des animaux*, 1859, II.

(2) Ueber ein perivasculars Canalsystem in den nervösen Centralorganen und ueber dessen Beziehungen zum Lymphsystem. *Zeitsch. f. wiss. Zoologie*, XV.

(3) *Untersuchungen*, Th., II.

(4) Zur Frage der Bindesubstanz in der Grosshirnrinde Virchow: *Archiv.*, XLVI.

(5) *Wiener Academie-Berichte*, Bd., LXI, Abth., I.

(6) Contribuzione alla fina anatomia degli organi centrali del systema nervoso. *Revista Clinica*, Nov., 1871.

researches on the "Microscopical Anatomy of the Nervous Centers," who exposes in a most convincing manner the inadmissibility of the views of His and his followers; and his interpretations have been confirmed by Boll,¹ in their utmost extent.

A somewhat peculiar position has recently been taken by Batty Tuke,² a most careful English investigator in "The Morbid Histology of the Brain and the Spinal Cord observed in the Insane," a position which again threatens to complicate the question.

Batty Tuke, abandons the former theory of His, regarding the perivascular canal.

"But as the existence in health of a space between the brain substance and the vessel is now more than doubtful, this term must be departed from, and the following experiments and observations are put forward to indicate that the existence of a canal around a vessel is an abnormal condition."

"In every section I have examined, in which blood has remained in the vessels, there is no evidence of the existence of a perivascular canal."

"Even supposing the actual existence of a small lymph space around a cerebral artery, it is difficult to understand how the backward flow of its contents could be carried on against the constant counter-impulse of the blood. His himself has abandoned the theory, and Rey and Retzius confirm him in his departure from it. A 'perivascular canal' must be regarded as a morbid condition, and in this indicative sense the term will be in future employed by me."—10 *Ibid*.

However, at the same time, he denies the existence of a lymphatic sheath around the vessels of the brain and the spinal cord, and gives us the description of "a thin hyaline membrane, as thrown out by the tunica adventitia, which invests the vessel in many forms of cerebral disease."

"There exists," he continues, "some discrepancy in the description of this membrane by various authors, some speaking of it as a

(1) *Archiv. für Psychiatrie*, IV., I.

(2) *British and Foreign Medico-Chirurgical Review*, CII.: April, 1873.

cellular fibroid secondary sheath, others as a hyaline fibroid, and others as a purely hyaline membrane, homogeneous and clear, which at first is non-fibrillated, but as it goes on contracting becomes less hyaline and more fibrous, like a sheath."

"The examination of a very large number of prepared sections and of recent specimens has convinced me of the existence of a membrane *outside the adventitia* to which the two latter descriptions are applicable. *I believe it is continuous with the sheath of pia mater* surrounding the vessels as they enter the substance of the brain, and *that it exists around every artery as its normal sheath*, although in perfect health it is not easy of demonstration. Robin found it in every subject he examined, and Clarke demonstrated it in the brain of a healthy young man who had been accidentally killed, and I can show its presence in the medulla oblongata of a cat killed by cut throat. In health it is exceedingly thin, perfectly homogeneous, non-fibrillated; in fact, a pure hyaline membrane, forming a somewhat loose envelope to the vessel. At bifurcations it is not intimately applied to the angle, but forms a triangular sac, and becomes again continuous a short distance beyond it. In the same way it ensaculates abnormal tortuosities and kinks. Judging from the fact that it is invariably demonstrable in empty perivascular canals, it would appear that it is rendered thicker by being subjected to lymph exudation. It also becomes more apparent in advanced age. When in this condition it is easily recognizable in the *pia mater*, which has been treated with water only for the purpose of cleaning, and in squeezed-out fresh brain which has received no treatment at all. It is true that glycerine, camphor-water and other agents render it more obvious, but their employment is by no means necessary. In the highest form of morbid development it is to be seen intimately attached to the brain-wall of a perivascular canal. So closely does it adhere at times, that it can be seen lying on the surface of the section, having been dragged out by the knife, but still clinging to the edges of the canals."—*Page 454.*

It is apparent in these expositions, we have to deal with quite a new interpretation. Batty Tuke makes a clear distinction between the *hyaline membrane* of Robin, Lockhart Clark, Rokitsansky, Wedl, Kœlliker, Sankey, Rindfleisch, &c., and the *adventitious tunic* of Virchow, Robin, Fromman, His, Golgi and others, but

he does not claim the presence of this *fourth* membrane itself, lying *outside the adventitia*, as a morbid product but only the thickened condition of the same in certain cases.

In regard to the investigations since my connection with the Asylum, they embrace nineteen brains of insane persons, and one of a young man in full health, suddenly killed on the railroad. Of these I would state the following anatomical facts.

In every case examined carefully, a covering surrounding the vessels which penetrate the brain substance, could be made visible, a sheath inclosing the vessels sometimes more and again less distended, and sometimes closely adherent to the inner coats. The contents of this sheath, when still expanded in its natural condition, were invariably recognized as consisting principally of lymph, and the direct communications of these ducts with those which surround the vessels of the *pia mater*, were easily demonstrated by injections of the lymph ducts of the *pia mater*.

What are these ducts and what is the nature of the membrane, forming the sheath, in an anatomical and physiological point of view? I can not but adhere to the opinions of the first discoverers, Virchow and Robin. It is evidently nothing more or less than the adventitious coat of the vessel itself, destined to carry away the overflow of the blood, the plasm which has exuded from the capillaries into the tissues, and which has not been taken up again into the venous current.

Besides the homogeneous tunics, there are no other membranes visible but the two in a close connection form the walls of the vessels themselves. I have never observed, either in sections, or in carefully insulated specimens of larger vessels with numerous branches, after removing the sometimes very delicate tunics, any

traces of another which could be regarded as an adventitious coat of the vessels. But the peculiarity that even ducts of a true capillary character also show the presence of these membranes and in direct communication with those of larger branches, renders it more than probable that they represent nothing more or less than the very adventitious coat itself.

That the spaces enclosed by this membrane and the media of the vessels may be found more or less distended, and in morbid affections of the vascular system sometimes in an extraordinary state of expansion, is a very well known fact. Also deposits of foreign materials, the exudation of fat globules, pigment bodies, crystals, etc., have been noticed by various authors. The presence of such deposits does not always indicate a morbid condition, as I have demonstrated them in specimens taken from a sound brain, as well as from a diseased one. But the extent to which they appear, is undoubtedly a matter of more or less importance, and in cases of general paresis, I have observed these spaces, here and there, entirely filled by cell formations of an irregular and spongy texture, apparently new formations, sometimes surpassing three or four times the inner caliber of the capillary vessels.

That on the other hand, frequently reported congestions, the overflow of blood and increased exudations will produce a dilatation of the brain substance itself, surrounding the vessels, is a presumption which may be admitted, although the histories of them can not be obtained. But that such dilatations really exist is an indisputable fact, and that after the reabsorption of the superabundant liquids by the absorbing ducts, these, when relieved from the pressure and contracted again to a uniform caliber, may leave a space between their membranes and the altered tissue of the brain sub-

stances, will be easily conceived, as the fact is in numerous cases observed. But I have never found in these spaces of a morbid development, any traces of organized lymph, nor any deposits similar to those demonstrable in the adventitious spaces as above mentioned. The only microscopical elements visible in these spaces, are fine filaments transversely crossing the space and forming a connection between the dilated tissue of the brain and the enveloping sheath of the vessels.

The question arises, what is the nature of these filaments? For a long time I was unable, from the apparently conflicting facts, to form a judgment. However, more recently, I subjected these formations to careful comparisons with similar conditions observed in specimens of hardened brain, and with the application of highly magnifying powers, have solved the question to my full satisfaction.

In preparations taken from hardened brain, as the hardening process depends upon a deprivation of water, the vessels will be found always in a more or less shriveled and contracted condition. The really existing physiological space enclosed by the adventitious tunic will very rarely be visible even in the thinnest sections. And the more the action of the hardening agent advances, the less distended will these spaces appear; and in most of the cases we may find the thin adventitious membrane so closely adherent to the media, that neither a separating space nor the membrane itself seem demonstrable by our optical instruments. It is for this reason that in so many cases the natural condition has been overlooked. The space produced by the contraction of the adventitia was accepted as a true canal around the vessels. The fact that it was possible to fill these canals by an injection, especially by the use of the puncturing method, could only confirm this theory. In

other cases in which the still expanded, adventitious covering was seen containing the organized lymph, this state was confounded with the former one. And, Batty Tuke and others, in the belief that the one false interpretation had to fall with the other, created the new theory of this hyaline membrane. Nevertheless, he is indebted to Virchow and Robin for the explanation of what he himself calls the adventitious coat.

Although in all specimens of hardened brain, as above mentioned, the true adventitious membrane of the vessels is only with difficulty demonstrable, it is virtually always existing. In a closer examination of the external surfaces, such vessels will never show the smooth appearance of the medium coat or of the simple membrane of a capillary. They are uneven, shaggy and trimmed with small bunches of twisted fibres, when insulated, and in sections, there are in these artificial spaces the same transversely crossing filaments observable, as in the above described spaces of a morbid origin. The application of higher and well defining powers will leave no doubt as to the determination of their nature. They represent the so-called Deiter's cells of the connective tissue of the brain substance, these peculiar brush-like or radiant-like cells which, adherent to the adventitious coat of the vessels, in consequence of its contraction, appear as drawn out from the molecular mass, which composes the parenchyma of the nervous centers.

There remains at this time no other question to solve. The great diversity of the opinions are undoubtedly, for the most part, due to the various methods of investigation employed by the authors. The injecting method so valuable in its results, may, even when applied with the utmost care, in combination with the puncturing method, produce artificial ducts, especially in tissues.

altered by some morbid affections. In consequence of the action of such hardening agents as alcohol, chromic acid, bichromate of potash and ammonia, osmic acid and others, we have to deal with so many changes of the normal structure, that the true anatomical conditions are demonstrated, sometimes only with great difficulty. The examination of the fresh tissues, however, in indifferent liquids, as water, albumen, gelatine, blood-serum, &c., should never be neglected, as it is by the employment of as many different methods of examination as possible, and by the application of theories carefully deduced therefrom, that we will be able to throw further light on regions so attractive to the student of histology.

[To be continued in the April number.]

TWO CASES OF PARALYSIS.

BY DANIEL H. KITCHEN, M. D.,

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CASE I. *Lead Paralysis.* Woman, age twenty, single, housework. Patient usually enjoyed good health up to the fall of 1871, when she was attacked with brachial neuralgia and suffered almost constant pain. From this time, she began to run down in her general health, lost appetite, and began to sleep irregularly. She took large doses of opium and morphine to allay the pain. Her complexion became so sallow that she began the use of powdered white lead, by rubbing a few grains over her face daily; says a number of ounces were absorbed in this way. Early in the spring of 1872, stopped the local application of lead, and for a month following took a few grains by the mouth each day. In June following, she had paralysis of both

hands, with slight attacks of colic. The paralysis of the extensors of the hands and fingers was complete, so that the hands hung down helplessly. No special treatment was pursued till August, 1873. During this interval she suffered a great deal of pain and colic, and required all the care of a child. When we first saw her, her condition was as follows: she was pale, anæmic and emaciated, conjunctivæ pearly, blue line on gums, the paralysis of both hands complete so that they were a dead weight, with marked loss of sensation, from the elbows to the ends of the fingers. She had to be dressed, undressed, and fed, and her weight which in health was 130 pounds, was at this time 96 pounds.

We began at once the application of the Faradic current, about ten minutes each day, the current directed from the elbow to the ends of the fingers. It was fully three weeks before any perceptible benefit was observed; then she began to flex the fingers slightly and had slight motion of the wrist. Not receiving as much benefit as we had anticipated from the Faradic current, we substituted the Galvanic and it has been continued regularly, every second day. At first we used sixteen cells of the Stöhrer battery, and gradually increased the number to thirty-two. From the time of the change of the current, her appetite increased, her general health steadily improved and sensation began to return. November the 1st, her weight was 110 pounds. About the middle of November, she could raise the hands to a level of the arms, but had not sufficient strength to retain them in that position for any length of time. At the time of writing, the sensation is perfectly normal, the muscles of the arms and hands are full and firm, and she has full use of the hands; can dress herself, goes to the table and uses her knife and fork as well as ever. Her weight is now 122 pounds, color

healthy, and she is apparently in her usual health. We propose, however, to continue the use of the current for a time, making an application once a week.

In most instances of lead poisoning, the metal enters the system by inhalation. In this case sufficient was absorbed by rubbing and internal use to produce paralysis. It will be observed that the paralysis affected only the muscles of the forearm and hand, leaving all the other muscles intact.

Neuralgia which almost invariably follows the poisoning by lead, in this instance preceded the paralysis, which was undoubtedly due to the gradual poisoning.

CASE II. *Paralysis of Left Leg with Progressive Muscular Atrophy.* This is the case of a young woman, in apparent good health. While walking up stairs about eight years ago, was suddenly seized with paralysis of the left limb. From that time up to August last, the limb was simply a dead weight, and her case was considered one of hip-joint disease. During all this time there was complete loss of sensation and power, the limb was atrophied and surface cold. With the assistance of a cane she walked with great difficulty, by throwing the foot and leg forward by the muscles of the hip. Her physical health ran down, and she became pale and anæmic.

In August, 1873, the healthy limb measured as follows:

At ankle joint, seven and one half inches.

At calf, twelve and a half inches.

Just above the knee, fourteen and a half inches.

Middle of thigh, nineteen inches.

Measurements of the paralyzed limb at the same time:

At ankle joint, seven inches.

At calf, ten and a half inches.

Just above the knee, twelve and a half inches.

Middle of thigh, fifteen and a half inches.

Her weight was 105 pounds. She was pale, emaciated and very anæmic, appetite variable. The left limb was completely paralyzed, the knee, ankle and joints of the toes could not be moved by the will. The surface was cold and the muscles atrophied, as the above measurements plainly show.

On the 15th of August, we began with the constant current, using sixteen cells of the Stöhrer battery. The application was made for fifteen minutes every day, the current being passed from the hip to the toes, and particularly through the knee and ankle joints.

September 15th, the measurements of the paralyzed limb were as follows:

At ankle joint, eight inches.

At calf, eleven inches.

Just above the knee, thirteen inches.

Middle of thigh, sixteen inches.

The circulation was gradually being restored, the limb was covered with a moist warm perspiration and the muscular contractions quite perceptible. She had partial use of the ankle joint and could move the toes readily, but there was no sensation.

October 15th, measurements as follows:

At ankle joint, eight inches.

At calf, eleven inches.

Just above the knee, thirteen and three-quarters inches.

Middle of thigh, sixteen inches.

Her weight at this time was 118 pounds; appetite increased, gait improved, could walk a distance of two miles with ease. At this time we began the use of the metallic plate, placing the paralyzed foot on the plate, and passing the electrode over the muscles of the limb. The number of cells was now increased to thirty-two, and twice a week, instead of using the sponge, we substituted the metallic brush.

November 15th, measurements as follows:

At ankle joint, eight inches.

At calf, eleven inches.

Just above the knee, fourteen and one-eighth inches.

Middle of thigh, eighteen inches.

Weight 119 pounds. Her physical health good, all the functions normal, sensation fully restored and the temperature the same as that of the healthy limb. The current still used every day.

December 15th, measurements as follows:

At ankle joint, eight and a half inches.

At calf, eleven and three-quarters inches.

Just above the knee, thirteen and three-quarters inches.

Middle of thigh, eighteen and a half inches.

Weight, 119 pounds; appetite good, and improvement continues. At the time of writing, 120 applications of electricity have been made. The rapid development of the muscles is shown by a glance at the measurements. The patient has full control over the various joints, and can now move the limb about freely, though some lameness continues.

In this case there have been no neuralgic pains, but anæsthesia was profound. The galvanism has served a double purpose in restoring the general health, by improving digestion, &c., as well as serving the direct purpose of a nerve tonic, and restoring the atrophied muscles to their normal size.

This case was one of spontaneous paralysis. The reflex excitability was not impaired. When the electric current was passed through the paralyzed muscles, she felt them move, and it was visible to the naked eye, and with either the rapid intermissions of the Faradic, or with the constant current, not the least pain was felt, while the same current applied to the healthy limb produced not only unpleasant sensations, but even pain.

PHOSPHORUS IN INSANITY.

BY WILLIS E. FORD, M. D.,

Assistant Physician of the New York State Lunatic Asylum.

Phosphorus has long been known as a valuable agent in the treatment of certain neuroses, and theoretically holds a high rank in therapeutics. Practically, however, it has been but little used, owing to the difficulties in the way of its successful administration.

It is well known that phosphorus is found in the juices and tissues of the system generally, while in the brain and nerve substance it exists in considerable proportion in the form of phosphorized fats, in a low state of oxidation.

It is an extremely difficult matter for chemists to determine the exact amount of phosphorus in the tissues; for the application of the amount of heat necessary to reduce them, causes it to oxydize immediately or to combine with an alkaline or earthly base, but it has been estimated by Von Bibra to be 1.5 to 1.9 per cent. The researches of Lehmann also prove the existence of an acid phosphate of glycerine in softened brain substance.

There appears to be a larger proportion in the gray, than in the white matter of the brain, but no direct relation has yet been discovered between the mental power of individuals and the amount of phosphorus in the brain.

Most of the ordinary articles of diet contain phosphorus in some form, thus keeping up the supply of this important element. An animal diet is more abundant in phosphatic matter, which will account for the

fact that a greater amount of brain work can be performed, without nervous exhaustion, upon a mixed animal and vegetable diet than upon one exclusively vegetable. The beneficial effect of cod liver oil so commonly observed in nervous affections and in certain wasting diseases, has been attributed largely to the phosphorus it contains in a readily assimilable form. Dr. Weiske in his experiments upon animals, found that the withdrawal of phosphoric acid from the food, proves injurious to the animal and ultimately causes death.

Phosphorus was first used in medicine, by Haller, over a century ago, in the typhoid stage of fevers. As early as 1793, Dr. Wolff reported cases of low fever attended with delirium, petechiæ, &c., treated by phosphoric ether. In 1833, an English practitioner published in the *London Lancet*, his experience in the treatment of cholera by phosphorus. In advanced stages of the disease, he gave one grain every ten minutes; three doses were said to have relieved the cramps, and it was thought by him to be the only reliable remedy. It has been given also in jaundice, chronic diarrhoea, and in typhoid and remittent fevers.

It is apparent, however, that much harm has been done by the indiscriminate use of the drug, and that no special success has followed when it has been thus administered.

A French chemist in testing the action of phosphorus on his own person, took one grain without serious results. On the next day, he repeated the experiment with double the dose; spasms and delirium ensued, and he died a victim of his own experimentation. One grain has been known to cause death in a human being.

Dr. Gray has for years prescribed phosphorus dissolved in oil and in alcohol at a high temperature, for

various disordered conditions of the nervous system, and with very gratifying results. In the October number of this JOURNAL, for 1869, there appeared an article by Dr Andrews, on "The Use of Diluted Phosphoric Acid," which has also been largely used in this Institution. Apart from the liability to undergo chemical changes requiring that they should be freshly prepared, the nauseousness of these fluid preparations of dissolved phosphorus has rendered their administration difficult. Practitioners have been unwilling to give solid phosphorus from the belief that it could not be taken up by the blood, until it had undergone changes in the stomach, that would be injurious to that organ, as well as from the fear of its deleterious effects upon the genito-urinary organs. They have therefore been content with giving its compounds, and it is a significant fact that those compounds, which hold phosphorus in the lowest degree of oxidation, such as the hypophosphites, have proved to be of the most value in the treatment of disease. This has led us to believe that the solid unoxidized phosphorus will give still better results when properly administered.

The common observation of physicians, that in the acute forms of insanity, as in all other cases of increased mental activity, phosphatic matter in excess is found in the urine, while the individual becomes proportionately weak, irritable, and finally exhausted, would seem to point out some relation between exhaustion of nervous force and the rapid oxidation and excretion of phosphorus from the system. The fact that in the stage of exhaustion following mania, the excretion of phosphorus is much less than in health, would seem to indicate that to restore the exhausted nervous sys-

tem to its proper balance, by supplying the wanting element, is a great desideratum in treatment.

Patients passing through the transitional stage from acute to the more chronic forms of insanity, or to recovery, are said to be dementing. Their appetite is usually good, not infrequently abnormally large. They sleep well, and accumulate flesh rapidly. The face becomes puffy and full, and those lines which give character and expression, are more or less obliterated. Instead of being the dial of the thoughts and feelings within, it indicates mental apathy, and often almost entire absence of mental activity. This is but a reflex of the cerebral state, the central nerves of special sense and expression revealing in their peripheral expansion the condition of the central ganglia. The lips become everted and present a pouting appearance, while the ears and finger tips are congested and blue, showing that the vaso-motor system also participates in the general depression and inactivity. At times the skin acquires an unctuous, unnatural appearance, while in other cases there is an extremely anæmic condition of surface, with a cold yellowish skin. These patients are inactive, sit for hours silent, and are indifferent to their surroundings, careless in dress, and often unmindful of the demands of nature. There is also with this marked lessening of motility, and this mental dullness, a corresponding visceral inactivity.

In these cases, for three months past, we have given phosphorus made up after the following formula, which is essentially the same as used by Drs. Anstie, Radcliffe, and others :

℞. Phosphori gr. xxxii.
Pulv. Acaciæ.
Glycerinæ āā ʒ ss.
Aquæ ʒ vi.
Pulv. Ext. Glycyrrhizæ.
Pulv. Rad. Glycyrrhizæ āā ʒ iss.

Melt the first three ingredients in a closed porcelain vessel, and stir until the phosphorus is finely divided, then add the other ingredients and divide into 960 pills; these are afterwards coated with collodion. The principal thing to be observed is, that the phosphorus be very finely subdivided, so it may not cauterize the walls of the stomach.

One pill was given after each meal, and the respirations, temperature and pulse were taken and carefully recorded three times a day. This record was kept for one month in each case, and the table thus constructed showed the following results: One hour after the pill was given, the temperature was raised from one-half to three-fourths of a degree, and the patient experienced a sensation similar to that of slight alcoholic intoxication. Toward the close of the month in each case, the temperature became more uniform and found its level at ninety-eight and one-half degrees, while, before treatment was begun, it varied from one-half to one and one-half degrees at different hours of the day. The pulse was accelerated from ten to fifteen beats per minute by the same dose, and during the month became more uniform and full, while the sphygmographic trace showed a deeper and less tremulous downward stroke. There was no perceptible change in the respirations.

Frequent examinations of the urine were made before and during the time of administering the drug. As in cases of increased muscular activity, the urea excreted is more abundant, so it was found that in the more acute forms of insanity the daily excretion of phosphorus often reached thirty and thirty-five grains. In the state of dementia following this, the amount was from fifteen to twenty grains daily. The average amount excreted by a healthy adult being about

twenty-two grains, with, of course, slight variations due to changes in diet. These analyses seem important, in showing a direct relation between the amount of wear and tear being sustained by the nervous system, and the amount of phosphorus excreted, and as giving a very good hint to the appropriate treatment.

Upon the administration of the drug to these cases of dementia, the amount of phosphatic matter excreted, uniformly approached the normal standard, and there were marked indications of mental improvement. Large doses, such as one-third to one-half grain seemed only to irritate the stomach and to be carried off by the kidneys, and it was thought best in each case to return to the original small dose.

In three of the fifteen cases under treatment, the stomach became so much deranged that the dose was first lessened and finally stopped altogether. These patients complained of a weight and oppression in the hypogastrium, and sometimes of a burning sensation, after the ingestion of the drug. In two of these cases, both dyspeptic, these symptoms were undoubtedly genuine, while the third complained only after opening a pill, thus discovering the nature of the remedy.

In the doses used it produced no immediate symptoms other than those already mentioned, but the nervous system which had become so impaired or debilitated by the acute attack, through which the patient had so recently passed, slowly manifested increased vigor, and gradually regained its normal condition. This improvement was probably due to the more abundant supply of the phosphatic element supplied to the nerve tissue. Its action upon the nervous system appears equally as striking and definite as that of iron upon the blood.

The experience of Dr. Anstie and others, published

during the past year, "On the Treatment of Neuralgia," &c., by large doses of solid phosphorus, shows that it can be safely administered, which has been fully justified by our own experience. We have observed none of those disagreeable symptoms mentioned by most writers upon the subject, such as albumen, or blood, or casts in the urine, neither jaundice or vomiting. From the literature of the subject as well as our own observation, we are led to believe that the best results have been attained from its use in small doses, and continued for a long time.

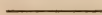
A careful clinical record has been kept in all cases where the drug has been used, and we hope in future numbers of the JOURNAL, to present the larger results.



HÆMATOMA AURIS.—RECOVERY.



BY E. H. VAN DEUSEN, M. D.,
Superintendent of the Michigan State Lunatic Asylum.



In a recent number of the *British Medical Journal*, William Teats, M. D., of the Coton Hill Institution, presents, we believe, the first recorded case of complete and permanent recovery in an individual, who had been the subject of marked and unmistakable hæmatoma auris. The case, briefly, was that of a married female, thirty-three years of age, in average good health, admitted to Coton Hill Institution, January 10th, 1870. It was said to be her first attack, and was of three months' duration. She was the subject of acute mania, with strong suicidal and homicidal tendencies; she was destructive and violent, improper in language, and very persistent in her efforts to accomplish self-destruction. The case was regarded as hope-

less, until August, 1872, when the excitement gradually abated, and about the middle of November, she was considered perfectly sane. The details of the history of the case, and of the treatment, which are fully given by Dr. Teats, are introduced by an interesting description of the development of these tumors, with the views of their character as presented by various writers.

In a communication to the same *Journal*, dated, The Asylum, Bootham, York, June 21st, 1873, Dr. Fred. Needham writes:

"I am able to supplement the very interesting paper of Dr. Teats, on 'Hæmatoma Auris,' in your week's issue, by the statement that I have also seen a case of recovery in which this complication existed. A young man was attacked with acute mania, in October, 1861, and came under my care in this asylum, within a week after the attack commenced. For twelve months no improvement took place, but the patient seemed to be rapidly proceeding in the direction of dementia, and for some time there had been hæmatoma of both ears, with the effusion, absorption, and subsequent disfigurement, which mark that peculiarity. A change then suddenly occurred; the excitement passed away, the habits improved, the general mental condition became entirely satisfactory, and the patient was discharged recovered, sixteen months from the date of his admission; and up to this time, a period of more than ten years, he has remained perfectly well.

Unless for the publication of Dr. Teats' paper, it would not have occurred to me to place this case on record; and it is, therefore, not improbable that the superintendents of other asylums have met with similar instances, a report of which would materially affect the prognosis to be taken in cases of insanity where this complication exists. Its striking diminution of late years would seem to point to my definite conclusion as to its general causation. I have certainly found, in my own experience, that its appearance has been materially influenced by the expressed assumption, that it is invariably associated with violence, somehow exercised, and for which some one shall be made responsible."

So far as their nature has been definitely ascertained, there is nothing in the simple occurrence of these peculiar tumors, to preclude the possibility of recovery; at

the same time, physicians experienced in the care and treatment of the insane seem to agree that their presence in any case affects the prognosis very unfavorably. In this connection, the case detailed by Dr. Teats, the second, presented by Dr. Needham, and a third from the records of the Michigan Asylum, are of much interest. The latter condensed from the case-book, is as follows: A young farmer of good constitution, twenty-one years of age, unmarried, was seized with acute mania early in June, 1870, and was admitted as a patient three weeks afterward. The attack, which was attributed to partial "sunstroke," and business responsibility of a perplexing character, was marked by high maniacal excitement and extreme disturbances; in fact, he was brought to the Institution clad in a single garment made from sail-cloth. Persistent destructiveness of clothing and of everything within his reach, and incessant motion, characterized the attack. He was under the charge of special, personal attendants; he was treated with quinine in small doses, followed by bitter tonics, and occasionally received five grains of chloral hydrate at night. Five weeks after admission, well-marked hæmatoma occurred in both ears, passing through the usual stages and terminating in the characteristic disfigurement. In October, there was an abatement of the excitement, convalescence was established and he was discharged recovered, February 15th, 1871. His health has continued good, as has been ascertained by occasional correspondence, and he has been actively engaged in business since his return home.

Dr. Needham regards it as quite probable, "that the superintendents of other asylums have met with similar instances of recovery, a report of which would materially affect the prognosis to be given in cases of insanity where this complication exists." The purpose of this

communication is simply to collect the three cases above detailed, and request for them a place in the JOURNAL OF INSANITY, that they may be brought to the attention of those exclusively engaged in the treatment of mental disorders, in the hope of eliciting reports of other cases of recovery under similar circumstances, if any have occurred.

The general appearance of sanguineous tumors of the external ear, their development, and their characteristic deformity which follows absorption, are too well known to require farther reference. Whatever may be the immediate cause of the effusion, or the precise circumstances determining it, numerous dissections have shown that it takes place between the perichondrium and the cartilage of the ear. The fact of its almost unexceptional restriction to the insane is also generally recognized. During a period of twenty years, about seventy cases have come under my personal observation; and, of all these, with the single exception above reported, not one has even partially recovered. Its occurrence, therefore, can not but be regarded as an unfavorable symptom as far as restoration is concerned.

Although the cause of these tumors is not definitely determined, they are generally and we think correctly, regarded as dependent upon some pathological condition of the brain itself. The conclusion of Dr. Needham, that they are associated with violence, seems scarcely supported by evidence. The fact that they do not occur in general hospitals to which patients are constantly being admitted, who have received severe blows and other violence to the ear, and are not met with under circumstances rendering that organ specially liable to injury, is at variance with such a conclusion. The appearance of the ears of persons, both sane and insane, upon which blows and violence have

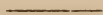
been inflicted, does not at all resemble hæmatoma, which is simply an effusion between the perichondrium and the cartilage. Again, they have not occurred to insane persons under treatment in asylums and known to have received blows upon the ear. So far from regarding violence as a cause, careful observation assures me, that if the ear of an insane person has been submitted to any degree of violence, a well-rounded, full and characteristic hæmatoma, like that presented as an illustration to Dr. Hun's admirable article on this subject is impossible. Contusions and ecchymoses destroy the symmetry of the tumor, as well as the perfect tracery of the minute vessels, usually observed for several hours previous to the dull, dusky hue assumed at a later period.



CLINICAL OBSERVATIONS ON THE DEMENTIA AND THE HEMIPLEGIA OF SYPHILIS.

BY M. H. HENRY, M. D.,

Surgeon to the New York Dispensary—Department of Venereal and Skin Diseases.



I contribute the two following cases of disease of the brain because they illustrate, beyond any possibility of doubt, their origin in syphilis. There is a growing tendency to attribute to syphilis obscure diseases of the brain or nerve centers, for no other or better reasons than that they are obscure, that the patient at some period of his life has had venereal disease, or that he has been benefited more or less by the use of the iodide of potassium.

The visceral lesions of syphilis have not yet been studied and observed with the same exactness and

discrimination as shown in many other departments of medicine; nor has there, until recently, been displayed any earnest effort to throw light on this branch of medicine on the part of those whose opportunities have been ample for special observation. In the present state of our knowledge of the phenomena of syphilis involving the brain, I think very little will be gained by any attempt to draw conclusions in support of any theory or system of practice. What are most wanted now, and what will best serve to bring order out of the chaos of ideas that are afloat regarding the etiology and pathology of brain syphilis, are good, honest, painstaking clinical observers. When, by and by, the results of such labor are collected and massed, we may be in a position to offer propositions that will serve a useful and scientific purpose.

Most of the authors who have made any special observations, and written on the disturbances of the intellect due to syphilis, have spoken of the lesion under the generic term of mental alienation. By *Dementia** is generally understood "that condition in which weakness of intellect, induced by accident or age, is the prominent feature—mind altogether feeble; ideas confused, vague, wandering; memory much impaired. Patients ignorant of time, place, quantity, property, etc.; forget immediately what they have just seen or heard. Manners undecided, childish, and silly. The demented have neither affections nor aversions, nor care for anything. Paroxysms of restlessness and excitement. Little or no control over bladder and rectum." With this view I have selected the term *dementia* because it conveys, I think, a more correct idea of the intellectual condition of the patients whose cases I have to relate.

* *Index of Diseases*, Tanner, p. 144.

CASE I.—Mr. —, a gentleman residing in New York, twenty-five years of age, of good size, and apparently in good general condition, consulted me on the 25th of September, 1868. He was suffering at the time from a severe pustular syphilide, mainly about the forehead and face, as well as from mucous patches about the tongue and fauces. In the early part of May, 1868, he contracted a chancre, which, according to his own statement, did not make its appearance until five weeks after coitus. He consulted a surgeon of this city, who treated the sore very lightly, assuring him that it would be all healed in a few days, and he would have no further trouble with it. Up to this time he had been in excellent health, living a great portion of the year in the country. The chancre did not heal rapidly, and he suffered from constitutional disturbance and mental anxiety. About the middle of August, 1868, he noticed a rash all over his body, and being annoyed with his medical attendant, he decided not to pursue any treatment. In the course of two weeks this disappeared, but was followed, about two weeks after, by the pustular eruption and sore throat. He was placed on a mercurial course of treatment, taking half a grain of the proto-iodide of mercury with one grain of the extract of hyoseyamus, morning and evening, and his throat treated with a strong solution of nitrate of silver in the form of spray. Under this treatment his throat soon improved and the pustular eruption disappeared. He spent the winter of 1868–1869, in Texas, and enjoyed excellent health. I saw nothing more of him until July 11th, 1869, when he complained of an irritable condition of his throat and fauces. He was suffering from a slight attack of laryngitis, which yielded to a mild course of treatment. Being an excessive smoker, I forbade the use of tobacco, and he soon got quite well. In the early part of the following December he called on me, and was apparently in splendid condition. A few days after he sailed for Cuba, where he intended to spend the winter with some friends. He remained on the island until May 22d, 1870, when he sailed for Southampton. In all his letters to his friends in New York he wrote that he was enjoying perfect health. Those who were with him at this time confirm his statements. He wrote to his father on some business matters the day that he sailed, and was perfectly well. He arrived at Southampton on the morning of June 6th, took the train to London, and went directly to his sister's house.

Dr. Edward Meryon, of London, was called to see him, and furnished the following account of the case while under his care :

"Mr. — arrived in London, from Cuba, on Monday, the 6th of June, and I was summoned to him on the morning of Wednesday, the 8th, in consequence of mental incoherence, of which he was then the subject.

"He complained of no pain, and all that could be elicited from him was, that 'he had had a cold and comfortless voyage; that he had kept himself very much to his cabin; that his bowels had been confined for well nigh a month, but that he had been very well.' His latter assertion was so far confirmed by a dispatch from the captain of the ship, as that he had not been under medical care during the voyage, but that on landing at Southampton he excited notice by not answering questions.

"From letters which he wrote immediately before sailing, and from the observation of Mr. R. F., there can be no doubt that he was quite well when he left Cuba.

"He managed to find his way to his sister's house in London, which, I think, he would scarcely have been able to do when I first saw him. He was then in a state of restless stupor, with a hot skin, quick, weak pulse, injected conjunctivæ, widely dilated pupils, not readily answering to light, and he was very deaf.

"Supposing that the obviously congested brain and disturbed circulation might, in some degree, depend on a mechanical cause from accumulated fæces, I gave him a brisk calomel purge, and ordered a mustard poultice to be applied to the nape of the neck.

"On Thursday, the 9th, the bowels were thoroughly emptied, and the pupils contracted more to the influence of light, but the disturbed intellect continued the same; he was incessantly intent on going out—on one occasion with a purpose—to his tailor, but generally with a vague current of ideas, and he was very impatient of control, or of being followed or accompanied.

"On Friday, the 10th, in consultation with Dr. Burrows, notwithstanding the averment of a cold voyage, we concluded that he must have had sunstroke. All the cerebral symptoms were unchanged, and we decided on repeating the calomel purgative pills, and on applying a large blister to the nape of the neck.

"On Saturday, the 11th, the pills acted thoroughly, and the blister rose well, but every symptom remained unchanged. In consequence of wakefulness, we gave him a third of a grain of the hydrochlorate of morphia at bedtime.

"Sunday, the 12th.—The morphia had little or no effect—his mind still wandering, and in the same restless spirit. I ordered a draught containing ʒi. of the hydrate of chloral, to be taken at night.

"Monday, the 13th.—Had a little sleep, but not much; bowels acted spontaneously. Ordered 3 ss. of chloral at bedtime.

"Tuesday, the 14th.—Slept all night, and during the greater part of the day. In the morning he complained of being cold, and his feet and legs were felt to be cold. His mind became suddenly quiescent. From being constantly restless he became suddenly impassive; his sense of hearing manifestly improved, but the mind still continued incoherent, although he often answered questions correctly.

"Wednesday, the 15th.—I ordered 3 i. of the syrup of the hypophosphite of iron three times a day.

"On the 16th, he had an evacuation from the bowels, which he passed unconsciously in bed, and the urine also passed in bed, apparently unconsciously.

"On the 17th, I added five minims of the liq. strychnine (one twenty-fifth of a grain) to be taken with each dose of the syrup; but it appeared to give a propulsive power to the muscular coat of the large intestines without affecting the sphincter muscles, for on Saturday, the 19th, he passed three evacuations in bed. I therefore withdrew the strychnia from the syrup, after which the bowels continued quiet until Wednesday, when they again emptied themselves under the influence of two doses of the liq. strychnine; and again on Saturday, the 25th, with one dose.

"During all this time the mind continued in about the same state—one day appearing to be improved, another the reverse;—so much so, that Dr. Burrows, who had not the advantage of watching him daily, declared, on the 30th, that an extensive part of the brain must be disorganized; and on Sunday, (July 3d,) he fancied that there might be only effusion into the ventricles, and that absorption might be affected.

"On Monday, the 6th of July, Dr. Smith, of New York, thoroughly examined him, bodily and mentally, but, alas! could throw no new light on the case.

"From the 7th (July) we have added seven grains of the iodide of potassium to two of the doses of the syrup daily—the third dose of the syrup is given alone—but with no marked alleviation of symptoms; the iodide to be discontinued during the voyage home.

"From all that I have been able to observe, and from the persistence of the mental phenomena, I have arrived at the conclusion that there is structural change in the cerebral substance round about the optic thalami, extending towards the surface of the

cerebrum, and close upon the tractus opticus, for every now and then the sight is obviously affected. Were there disease more in front, and implicating the corpora striata, motion would doubtless be affected. If in the cerebellum, either there would be loss of co-ordination of muscular motion or some disturbance of the genital organs, or sickness, of which none exist. If about the crura cerebri, the muscles of the eyes would be affected. If in or about the pons varolii, some facial disturbance would present itself; and if in the medulla oblongata, some affection of speech, deglutition, or respiration. That one portion of the brain which I have named remains.

“July 26th.—The day after my report of Mr. — was written, I observed such a manifest improvement that, although a cabin was secured for his voyage to America, I advised a postponement of his return for a short time, lest any unavoidable disturbance should interfere with the process of repair which appeared to have commenced. Since that time the change for the better has been continuously progressing; and although the consciousness of water existing in the bladder, and of excrementitious matter in the bowels is still defective, yet are there indications that such consciousness is returning, and the mental faculties are obviously improved. Under such circumstances I can only suppose that there has been effusion into the lateral ventricles of the brain, that the optic thalami, the hippocampi majores, and the surrounding brain substance have suffered from pressure, and that the process of absorption is gradually going on. Such pressure will account for all the symptoms which have occurred, and the improvement justifies the hope that the brain is clearing itself, and that, eventually, Mr. — may regain his former healthy condition.”

For two weeks before leaving England he was able to dress and sit up all day. He went regularly to his meals and was able to assist himself at the table. He walked, and rode, and even made the journey to Liverpool without any inconvenience. On the 27th of July he sailed for New York. During the voyage he seemed to improve daily, both bodily and mentally. He arrived in New York on the 8th of August. The improvement seemed to continue until about the 1st of September. During the greater part of August he rode and walked every day, played billiards and cards, and enjoyed his food. His exact condition in the latter part of August, as far as I learn from his father, was this:—“He was not entirely steady on his legs. His memory was weak and imperfect. At times he was quite incoherent. His sight was so

imperfect that he could not read." About the 1st of September he began to fail badly, and in a few days became so helpless that he was forced to remain in bed. From about the 20th of July until the 4th of September, with one or two exceptions, he had not had any involuntary passages from the bowels or bladder. At this time my friend Dr. D. Tilden Brown was called to see the patient, and on hearing the history of the case suggested that I should be consulted.

On the 4th of September I first saw him after his return from Europe. Although I had known him very well indeed, he did not recognize me. In response to my questions he answered incoherently and foreign to my interrogatory. He seemed to have lost his mind entirely. He stood up with great difficulty, and as he attempted to walk his knees gave way, and he swayed from one side to the other. He showed a fear of falling, and only maintained the erect posture with a great effort. As he stepped forward he was unable to lift his feet, he dragged them along. He was as stout as when I saw him last, but his flesh was "flabby." There was paralysis of the whole of the right side of the face, with considerable distortion. The right cheek bulged out, and the mouth was constantly open; the tongue turned to the right and hung forward. There was mydriasis of both eyes. The left pupil responded to the influence of light; the right did not in the slightest degree. There was paralysis of right oculo-motoris nerve, with complete ptosis of the right eyelid. His appetite was bad, and deglutition very imperfect. He retained food in his mouth for hours; although unable to swallow, it did not occur to him to remove it from his mouth. His sight was very bad, he could not read or even tell the letters of large print. His whole look and manner gave the impression that he had entirely lost his mind, in fact suffering from all the symptoms and many indescribable features that are known to syphilographers in the term *l'hébétude*. He was at this time in the habit of passing his feces and voiding his urine involuntarily. I ordered a generous diet, a little wine, and thirty grains of the iodide of potassium to be given three times during the day, and thirty grains of the bromide of potassium to be given at bedtime. I also insisted on the necessity of the greatest care of his person and general wants.

On September 6th there was not the slightest change in his condition. Increased the amount of potassium to four thirty-grain doses daily. Continued the bromide at night.

September 7th.—There seemed to be a little less paralysis of

the face and less fall of the right eyelid. His speech and articulation was a little better.

September 8th.—Was a little better; still voiding his urine involuntarily. On examination found it 1023; no albumen.

September 9th.—Dr. W. H. Van Buren saw the case with me, and it was agreed to increase the amount of iodide of potassium to five doses daily. His appetite was improved, and he slept much better.

September 11th.—The only noticeable change was that he was a little more cheerful. Since he slept well I discontinued the bromide of potassium at night, and added another dose of the iodide—making one hundred and eighty grains of the potassium daily in six doses.

September 12th.—He complained of a little difficulty in digesting his food. Ordered five grains of pepsine and five grains of bismuth before each meal.

September 13th.—Much better in general appearance. Face decidedly improved. Eats well and sleeps well. Digestion much better.

September 14th.—Still improving. Answered questions more intelligently; conversed in the morning with comparative ease. Has no control over the bladder. Sleeps well and eats well. No ill effects of any kind from the use of the iodide of potassium. Increased the amount to seven doses—making two hundred and fifty grains daily.

September 17th.—Facial paralysis much less. Less deformity about the mouth. Improved in intelligence. General condition much better. Ordered the medicine to be taken every two hours—taking two hundred and fifty grains of the iodide daily.

September 20th.—Sits up all day. Has no control over the bladder. In general appearance is much improved. Answered questions more intelligently than he had done for some months. Taking two hundred and eighty grains of the iodide of potassium daily.

September 21st.—Went out for a ride. Treatment continued.

September 26th.—Very much improved, mentally and physically. Rides out every day. Walks better. Can read slowly. Mydriasis of left eye entirely disappeared. Right eye a little better. Treatment continued. Examination of urine showed slight deposit of crystals of oxalate of lime, Spec. grav. 1020.

October 3d.—There being little or no improvement during the last three days, and as he showed great tolerance of the iodide, I

increased it so that he is taking three hundred grains daily. From this time until October 19th he was gradually improving. Walks out every day. Eats well and sleeps well. Reads better, and sits up in the evening, and plays cards, such as whist and cribbage, well. Has control over his bladder, and shows a great improvement in his general intelligence. His sight being still very much impaired, (October 19th,) my friend Dr. H. D. Noyes was kind enough to see him with me, and the following is the result of his examination:

"There is divergent strabismus, but the attempt to investigate the condition of the muscles with any care is impossible, on account of the great amblyopia and the clouded state of his mind. He answers questions very slowly, and his apprehension is extremely limited. His face is pale and has a vacant expression.

"The right pupil is slightly dilated, but contracts when the eyes attempt to converge. The left pupil normal.

"Vision in each eye $\frac{20}{200}$. Reads Snellen 5 at eight inches. Visual fields could not be defined. Color perception not tested.

"By ophthalmoscope, right eye; media clear, emmetropia; optic nerve unnaturally white, border sharply defined, and heavily marked with pigment; its tissue opaque; its surface not elevated; veins large, arteries of usual size; deficiency of small vessels.

"The retina exhibits a glistening, clouded infiltration, which makes it appear like watered silk. The exudation occupies the depth of the membrane, and extends over all the central portions of eye-ground. There are no apoplexies nor spots of exudation.

"In the left eye the media are clear and refraction emmetropic. The optic nerve is congested, looks as much too red as the other optic nerve too white. Arteries and veins are of the usual size and appearance; the retina hazy and infiltrated as in the other eye.

"The lesion in this case is evidently neuro-retinitis, and the appearances favor the presumption of a process coming down from the brain by continuity of tissue, not the occurrence of strangulation of the head of the optic nerves from pressure on the return circulation. The absence of decided elevation, and the sharp limitation of the right optic disc, are arguments for this opinion. In the right nerve the acute inflammatory stage had passed, and there remain the connective tissue and atrophic degeneration of nerve-fibres. This would imply that the left eye was attacked after the right, or may have been more severely inflamed, because in it the symptoms of hyperæmia are decided. The lesions seen by the

ophthalmoscope stand in full accord with the other symptoms, indicating serious brain trouble."

October 24th.—Sight very much improved. Can read the large print of newspapers tolerably well. Walks much better, and when standing is much steadier in his knees; related plainly and without hesitancy what he had done the day before. Still suffers from incontinence of urine.

October 28th.—Improving daily. Looks decidedly better. General perceptive qualities much more acute. Can walk half a mile without fatigue. Memory much better. Converses rationally on ordinary topics. Realizes his condition perfectly. His appetite is good. Has no desire to sleep during the day, but sleeps well during the night. Continues to take the full amount of the iodide of potassium daily (300 grains,) as well as the quinine and iron.

November 1st.—Gaining in strength. Treatment continued.

November 4th.—Called at my office; looks very well. Has lost almost entirely that dull vacant look. Memory still improving. General intelligence steadily returning. Walks a mile without fatigue. From this time he went on gradually improving; he spoke of his visit to Havana being like a dream. In the early part of January, 1871, he took very little of the iodide of potassium, and in February discontinued it entirely. In March he was, to use his own words, quite himself again, with this exception—his sight was still imperfect. He is able to walk to his father's office every morning, a distance of three miles, and walk up in the evening without feeling fatigue.

During the summer he spent a portion of his time in the country, and returned to the city, apparently as well as ever, November, 1871. The only difficulty from which he now suffered being his visual power and capacity, I again called on my friend Dr. Noyes, and availed myself of his skill and experience. The following is the result of his examination:—

"November 24th, 1871.—Mr. — examined again. The right pupil which was formerly dilated, is now of normal size and behavior, while the left pupil is enlarged, although contractile. The movements of the globes are normal; does not have diplopia. Vision in each eye $\frac{20}{70}$. Reads Snellen $1\frac{1}{2}$ at 5 inches, with each eye or with both.

"To the ophthalmoscope the right nerve appears pale and blueish white; edges a little indistinct; very deficient in small vessels. Arteries small, veins large, no pulsation. Left optic nerve, which thirteen months ago was congested, is now of a bluish white color,

its border strongly defined and pigmented; has neither elevation nor depression. The small vessels in horizontal meridian very few. The adjacent retina clear, except above nerve is a glistening streak of connective tissue, and at the macula the retina has a glistening bluish or steel-colored reflex, as if due to connective tissue formation.

"The optic nerves, it is thus seen, have passed through the period of active inflammatory congestion to the state of white atrophy. Much of the nerve-tissue has survived the ordeal, and being now relieved of the inflammatory hyperæmia and accompanying infiltration, vision has advanced from $\frac{1}{10}$ to $\frac{2}{7}$."

Before making any remarks on the case that I have just related, it may, perhaps, be well to state that I heard of the condition of the patient, when in London, the day that his father sailed from New York to join him. Knowing that the father was not aware of the syphilitic history of the patient, I communicated the fact to him, and asked him to tell the physicians in London the general nature of the attack. Dr. Charles D. Smith, who was a fellow-passenger, visited the patient, and mentioned what I had said. After they had failed to discover any external evidence of his having suffered from syphilis, it was decided, "since it could do no harm," to give small doses of the iodide of potassium, five grains of which were administered three times daily. While the patient showed little or no improvement under the expectant and tonic treatment, under use of even this small quantity of the iodide of potassium a marked change for the better was soon manifested. On taking all the symptoms into consideration, I was led, and still believe that there was extensive and diffused gummy deposit within the arachnoid at the base of the brain, but mainly on the right side. From my own experience I am satisfied that, if larger quantities had been given at this time, the patient would have been spared the attack which

followed his arrival in New York. I believe the older the syphilitic deposit, the greater the necessity for the exhibition of an increased amount of the iodide. I have been somewhat surprised to find that, even at this time, there appears to be some fear shown by our friends on the other side of the Atlantic of the use of the large doses such as we are in the habit of using in this country, and this, too, since Sir Henry Thompson* published his own excellent conclusions. To derive the full benefit of the iodide where there is a large amount of gummy deposit, or any of the inveterate and intractable forms of the disease in the tertiary period, it must be given in large doses—indeed, I scarcely know the limit. Little fear need be entertained about producing iodism. I have never seen it in a person suffering from tertiary syphilis. In this case the patient took three hundred grains daily for more than eight weeks, and with the disappearance of the syphilitic symptoms, he gained steadily in his general health and in flesh. To obtain the best results in the use of the iodide, it should be taken thoroughly diluted—each dose in a small glass of water. If there is any nausea, a little compound tincture of bark, or an infusion of columbo, may be added. The drug is more readily and perfectly absorbed when taken in this way than when taken with only a small quantity of fluid.

The history of the case illustrates the syphilitic character of the disease. Following the constitutional manifestations, there were cerebral disturbance, indicated by mental derangement, incoherency, loss of memory; paralysis of third pair, shown by ptosis, external strabismus, mydriasis; paralysis of sphincters; loss of sight and marked lesions, revealed by the ophthalmoscope. The tertiary manifestations occurred two years after

* *Lancet*, December 28, 1867.

infection. In forming a diagnosis of the case, I, of course, excluded sunstroke, alcoholic poisoning, or mild uremic poisoning, from the list of probable causes. In the first instance, the patient was not exposed to the sun, and the history of his attack is entirely opposed to any such conclusion. In the second instance, the patient was an exceedingly temperate man, and there was not the slightest indication of any delirium, or of any hallucinations, or of the prostration invariably associated with attacks of cerebral congestion following alcoholic excesses. The examination of the urine failed to detect any casts, and the entire absence of any puffiness of the face, or other dropsical effusion, dispelled the idea of a mild uremic poisoning.

CASE II.—Mr. —, aged 45, consulted me first June 26, 1868. He gives the following history of his case: "Four years ago I contracted a chancre, and was attended by Dr. —, of this city. It was very difficult, indeed, to heal up the ulcer. I had two buboes which suppurated. Up to that time I enjoyed excellent health. When my medical attendant found that it was difficult to heal the ulcer, he placed me under a mercurial course of treatment, which was kept until my gums were very much affected. About the time the buboes commenced to heal, so that I could get about, a rash appeared over my whole body. Some time after this I had another eruption, which he told me was a pustular form of the disease. I was under his care for this last eruption nearly six months. The ulcers were very obstinate, constantly recurring. At this time I took the iodide of potassium with syrup of sarsaparilla. I continued this treatment for some months. From that time until last fall (Nov. 1867) I was very careful not to expose myself to cold or any dissipation, and I managed to get along. I never felt perfectly well from the time I contracted the disease. It is very possible my mind has something to do with my distress, but I certainly never felt like myself after the disease manifested itself."

I have given thus far the history of his case in his own words. At the time he called on me he was suffering severely from the want of rest, and the irritation caused by the rupial ulcers, that literally covered his legs, feet, and portion of his arms. Both tibiæ showed large nodes, and he complained of severe neuralgic

pains about the head and neck that increased at night. Although of good frame, and apparently well nourished, he was weak, and showed unmistakable evidence of an inveterate syphilitic cachexia. I placed him under the following treatment: Twenty grains of the iodide of potassium to be taken three times daily in an infusion of columbo, and five grains of the citrate of quinine and iron to be taken before each meal. Forty drops of McMunn's elixir of opium to be taken at bedtime, and the strictest care taken to cleanse the ulcers morning and evening, dressing them with a little simple cerate after being sponged with a weak solution of the chloride of sodium. Under this treatment he showed, in the course of ten days, much improvement. His appetite was improved. He slept better, and the ulcers showed a better tendency to heal than they had done for some months.

July 12 (1868).—Very much improved. Finds it still necessary to use the opium at bedtime. Increased the iodide of potassium to four scruples daily.

July 24.—Not much better than when last seen. Increased the iodide of potassium to five scruples daily.

August 3d.—Much improved. The ulcers healing well, and bearing altogether a much healthier aspect than they have done since he has been under my care. Eats well and sleeps well, having discontinued the use of opium at bedtime. The iodide of potassium and other general treatment continued.

September 1st.—Had continued the general treatment, and was improved in every particular. The ulcers had all healed up, and the cicatrices bore a good aspect. The nodes over the tibiæ had almost entirely disappeared. The quinine and iron was discontinued, and cod-liver oil ordered. One hundred grains of the iodide of potassium was still taken daily in five parts.

October 5th—Feeling so well he had discontinued the use of the medicines for about ten days, and indulged freely in the use of spirituous liquors. When I saw him he was suffering from an attack of influenza and severe pains in all his bones and joints. New ulcers had appeared on his legs, and the good that had been accomplished during the past three months was entirely overcome by his dissipation and excesses of the last ten days. With appropriate treatment, good nursing, and a generous diet he soon recovered; but the ulcers were slow to heal. The treatment was continued. From this time he remained under my care until January, 1869. He was then doing well. During the year 1869 I attended him at intervals; but he had become very dissipated, and seldom

followed any systematic course of treatment. I did not see him in 1870 until the 28th of April, when I went to him in Brooklyn. While visiting some friends he was taken suddenly ill, and becoming alarmed from his manner and loss of mind, I was sent for. I found him very much emaciated, with stupid expression of face, a difficulty in articulating his words, an entire loss of memory, and when addressed answered in a rambling and incoherent manner. Experienced a difficulty in raising his feet from the ground or maintaining the erect position. The functions were performed without any difficulty. I ordered the use of iodide of potassium, one scruple to be taken four times daily, and increased to five or six times if he did not show improvement within one week. He was placed on a generous diet, with wine or milk punch. In one week he was so much improved that he went West, and there spent the summer.

On his return in October, he was very much improved in appearance, and promised to do well. He attended to his business, and seemed to be better off in every way than he had been for a long time. I did not attend him again until June 8, 1871. I was called to see him in the evening of that day, in consultation with Dr. Steele. From the doctor I learned that the night previous he had been drinking perhaps a little more than usual, although for some weeks before he had been very dissipated. He fell asleep on a lounge in the office of the hotel where he lived. About midnight his friends awoke him and insisted on his going to bed. In making the effort to raise him up it was found that he was paralyzed on the right side, spoke but little, and then in an incoherent and rambling manner. He was placed in bed, when he soon fell into a heavy sleep which lasted for some hours. In the morning he spoke very indistinctly and with much difficulty. When I saw him in the evening no change had taken place; the whole right side of his face and extremities were paralyzed; there was ptosis of right eyelid, mydriasis, and divergent strabismus. There was no fever; temperature good. He was carefully nursed; his general wants strictly attended. He was ordered a diet of beef tea, weak milk punch, Vichy, and a scruple of the iodide of potassium to be taken every five hours in a glass of water.

June 9th.—No change in his condition; lies in an apathetic state; takes food and medicine; when spoken to answers with difficulty in an imperfect and rambling way. Ordered the iodide of potassium to be given every four hours.

June 10th.—No change of any consequence; slept fairly during

the night; pulse good; had a movement from the bowels this morning; voids his urine (when told by the nurse) three or four times daily. Treatment continued.

June 11th.—Does not appear as well to-day; has grown more feeble.

June 12th.—Lies in a dozing condition; seldom moves, or attempts to utter a word, unless addressed by his attendant. Treatment continued.

June 13th.—Entirely unconscious; breathing normal; pulse 86; voided his urine this morning involuntarily; swallows with great difficulty.

June 14th.—No change, with this exception—his breathing is somewhat heavier and faster; respiration about 38 in the minute.

June 15th (morning).—Lying in a comatose condition; respiration 40 in the minute. At ten in the evening he died.

POST MORTEM EXAMINATION.—June 16th, 1871.—The body having been placed on ice, a post-mortem examination was made fifteen hours after death. In this I was assisted by my friends, Drs. Briddon and R. W. Taylor. Rigor mortis well developed; upon the body are numerous cicatrices of syphilitic ulcers. Upon opening the head, found a gummy tumor of the integument of the scalp; upon each frontal bone were numerous minute bones, the results of previous inflammation which had not involved the dura mater. The convex surface of the brain appeared normal, but upon its under surface, including that portion which is situated in the middle cerebral fossa, the arachnoid was greatly thickened, and of a dirty chocolate color. This same appearance was seen slightly upon the lateral surface of the left side, but the condition was not as far advanced. Upon opening the fissure of Sylvius found a gummy tumor as large as a pea, which completely encircled the middle cerebral artery, and was prolonged in filaments over other minute arteries which sprang from the main trunk. The tumor was firm in consistence, and was attached by its outer surface to the brain-tissue on each side of it. The caliber of the artery was somewhat narrowed, and those springing from it were compressed to occlusion.

The heart, lungs, liver, spleen, and kidneys were examined, but showed no marked or appreciable pathological change.

THE MICROSCOPICAL EXAMINATION of the tumor was made by Dr. Taylor, and found to consist of round cells, some having nuclei, others no nuclei, but granular contents. They were of a diameter of about $\frac{1}{2000}$ of an inch. Mingled among these cells

over the field was a large quantity of granular and fatty detritus, and here and there a few fusiform connective-tissue cells. These round cells were not as well defined as those of gummy tumors of the skin, but they preserved their contour much better than the cells of gummy tumors of the liver. The nuclei were present in about half the whole number, and were not of uniform size; in some they were about $\frac{1}{3000}$ of an inch, in others about $\frac{1}{8000}$ of an inch. The outer coat of the middle cerebral artery was rendered indistinct by this cellular deposit, which, however, had not invaded the middle or the inner coats. The portion of the tumor which was nearest the artery was composed mostly of these cells with some fibres of connective tissue; whereas portions taken from the periphery of the tumor were composed almost wholly of granular and fatty débris. The cortical portion of the brain in the immediate vicinity of the tumor, and slightly beyond it, was soft and readily broken down, and, under the microscope, was found to be composed of granular molecules.

In this case there were many features of the attack that might easily have led to the belief that it was a case either of ordinary cerebral hemorrhage, or of serous apoplexy, and had I not known the history of the patient, there were many circumstances connected with both attacks which might have induced me to look to other causes than the syphilitic lesion for a solution of the problem of his disease. The post mortem examination, however, in connection with the previous history of the patient, tells so plainly that syphilis was the cause, that it is scarcely necessary to seek further for an explanation.

It may possibly be urged that the mental phenomena in the last attack were due to cerebral congestion, brought on by the patient's dissipation, and not to the syphilitic disease. But the only manner in which I can explain the sudden development of the other symptoms which were observed in the last attack, and resulted in his death, is, that the gummy tumor became the seat of active inflammation, and, pressing upon and

around the yielding artery, caused its occlusion, and in that way cut off the supply of blood from the portion of the brain supplied by that artery. The active inflammation, I should judge, was excited by his recent excesses in the use of alcoholic stimulants.

In this case the first recognized attack of the disease in the brain occurred six years after the infection, and I think it very probable that, had he been a temperate man and pursued a judicious course of treatment, we should not have had the results I have related of the post mortem examination which followed the second attack, seven years after infection.

The hemiplegia was marked by the same characteristics as described by authors who have specially observed the disease.—*American Journal of Syphilography and Dermatology.*

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MASSACHUSETTS. *Twentieth Annual Report of the State Lunatic Hospital at Taunton:* 1873. Dr. W. W. GODDING.

There were in the Hospital, at date of last report, 414 patients. Admitted since, 431. Total, 845. Discharged recovered, 81. Improved, 188. Unimproved, 89. Died, 53. Total, 411. Remaining under treatment, 434.

This Institution originally intended for 250 patients has, for some years, been crowded with an average of 400, and during a portion of the past year of 450 patients. The Legislature at their last session made an appropriation of \$125,000, for the erection of two wings,

one on either side of the present building. This work has been pushed forward with vigor and economy, and early in the present year, the wing for men will be opened. It is of three stories, and built to correspond in architecture with the original building to which it forms an extension. It is free from ornamentation, and strict regard has been paid to durability and thoroughness of construction. Each floor will contain about thirty patients in single rooms, and the requisite number of attendants. In connection with each new ward is a large room, with the necessary service rooms, to be used for the sick, where patients can be visited and attended by friends. These rooms are of easy access, without passing through the general ward. In the addition great attention has been paid to securing an abundance of sunlight, and free ventilation, as also to immunity from danger from fire. The foundations for the women's wing have been laid, and the structure will be completed as soon as possible. A new engine house has been erected, with provision for five new boilers, a fan room, engine room, and shop for machinist on the first floor, and a shop for general uses in the second story. New pumps and water tanks have also been placed in position, which, it is thought, will furnish the amount of water necessary for all the uses of the Hospital. Other improvements have been made which add to the efficiency of the various departments.

The Doctor makes a final appeal regarding the provision for the convict insane. As before, he advocates, as the best measure, the erection of a separate institution, and this failing, the erection within the enclosed ground of the new prison, of a comfortable hospital building for their care and custody. This is the general plan adopted in the State of New York several

years ago, and has the merit of being a success. Another plan discussed is, the putting up of such a building in connection with one of the existing asylums, a project, which meets with no favor with any of the hospital governments. From the quotation from the Board of State Charities, it would seem that the Taunton Asylum, in view of the extensive additions being made, stands a fair chance of being selected to accommodate the convict insane.

The Doctor then discusses in a very interesting manner the three questions: "Are a considerable number of, or are any sane persons forcibly detained in hospitals?" "Are those who are insane generally abused there?" "Are our hospitals doing everything for those under their care that could reasonably be expected of them?" We quote a portion of his remarks upon the subject of abuse:

"About the alleged abuse of patients, while human nature is what it is, we must expect now and then to get unsuitable persons as attendants, and it is too much to hope that nobody suffers at their hands before their character is known. I can only say that after that they do not remain. It is a very trying place, that of attendant on the insane, and the man or woman who faithfully and patiently labors in that capacity, kindly caring for the helpless, the violent, the unthankful, has certainly an admirable opportunity to cultivate all of the christian graces, and if they miss their reward in this world I hope they may find it in the next. 'With what measure ye mete, it shall be measured to you again.' Friends tire of their endless care and bring their patient to the hospital. The public expects these attendants never to grow weary, not to hear the oath or the obscene word, or to mind the blow or the stinging taunt; but they do, for they are human like ourselves. I only expect them to remember that the patients, being insane, are not responsible for what they do, and that they are not to notice what is said, to care for them as children, and that the golden rule is worth whole pages of by-laws. The public have very little conception of what the insane really are, or of the difficulties in the way of a proper care of them. Man reverts very

fast to the animal when you take away his mind. The natural impulse to throw a screen over all this is eminently proper and I shall not be the one to lift it. I only ask that the fact shall not be overlooked in judging of the situation."

MASSACHUSETTS. *Eighteenth Annual Report of the State Lunatic Hospital at Northampton*: 1873. DR. PLINY EARLE.

There were in the Hospital, at date of last report, 433 patients. Admitted since, 181. Total, 614. Discharged recovered, 48. Improved, 59. Unimproved, 52. Not insane, 1. Died, 21. Total, 181. Remaining under treatment, 433.

Dr. Earle, as in years preceding, devotes considerable attention to the subject of moral treatment, and gives in detail the various assemblages of patients and the record of their labor. Only twenty-four evenings of the year passed without some general congregating of the patients. As showing among other things the economy of such assemblages, the Doctor states, "that as a rule, the lights in the halls are extinguished, and those in the offices are turned down; every patient who is not in bed is expected to be at the gathering, and probably on three-fourths of the evenings, when those officers are all at home and well, the Superintendent, both of the Assistant Physicians, and the Clerk are present." From the Doctor's statement, it would seem that all must either "fish or cut bait"; either attend these gatherings or go to bed. This may all be well, but it would seem that attendance thus compulsory, would be looked upon as a labor, by both officers and patients, rather than in the light of amusement or recreation. The new airing courts have been found to be of great value in enabling a larger number of the patients to enjoy the advantage of outdoor air and exercise, and it is recorded as a remarkable fact, though an experiment merely, that on one occasion all but about ten per

cent. of the patients were out of doors. Though comparisons are odious, we would simply say, for many years in the Asylum at Utica, the number of men patients on the wards during pleasant weather has not averaged more than three per cent., and at times has been only one per cent.

Dr. Earle makes a strong appeal for the establishment of an asylum for the convict insane, in connection with the new prison, to be under the charge of the Physician to the prison. The Superintendents of the three State Hospitals united in a memorial to the Legislature to this effect, which, we hope, will be the means of accomplishing so desirable an object.

NEW YORK. *Annual Report of the Kings County Lunatic Asylum*: 1873. DR. E. R. CHAPIN.

There were in the Asylum, at date of last report, 684 patients. Admitted since, 322. Total, 1,006. Discharged recovered, 112. Improved, 71. Unimproved, 39. Died, 66. Total, 288. Remaining under treatment, 718.

Regarding the character of cases admitted, Dr. Chapin makes some remarks which so closely agree with the experience of others, that we quote in full:

“Among the patients admitted in recent years there has been a growing disproportion of old and decrepid persons, as to some of whom there seemed to us insufficient mental obliquity to prevent their more properly passing their few remaining years, at most, in the bosom of their respective families. While we appreciate the compliment inferentially paid us by the friends in intrusting these old people to our tender care, nevertheless it is discouraging to find our new wards, so well adapted as they are to the treatment of the recent insane, becoming curtailed as to their usefulness in this regard, by being largely occupied with a class for whom no cure can be expected.

He treats of some of the popular fallacies in regard to the insane, and first, of the belief which is enter-

tained by many, and which so often operates to the detriment of those who have recovered, that those who have been insane never become perfectly sound in mind again, or, at least, are so liable to a return of the disorder that they can never be relied on with the same confidence as before. This idea he pronounces unjust and even cruel, as it certainly is erroneous. Another popular fallacy is noticed in the belief, entertained by some, that sane people may easily be thrust into and kept in an asylum, for an indefinite period. It is an error to suppose that because patients are occasionally released from asylums by the courts, they are wrongfully committed to them or detained therein. In some of these cases the patients are convalescent, and would soon be discharged; again, patients who are unquestionably of unsound mind are released by judicial proceedings, under the representation that they would no longer be liable to endanger their own or others' lives or property. He speaks of the early period of improvement in many cases, when before they can comprehend the reason of their confinement, they importune friends, visitors and others, either personally, or by letter clandestinely sent out, for their release, and very aptly characterizes this as the *habeas corpus* era of their history. He calls attention to the fact that many who are coherent in speech and correct in their deportment, may, by concealing their delusions for a time, convince those not acquainted with their cases of their perfect sanity, while they are really dangerous lunatics. Of this he gives a notable instance which occurred in the Asylum of which he has charge. The affairs of the Institution are in a flourishing condition.

NEW YORK. *Buffalo State Asylum for the Insane*: 1873.

From the Third Annual Report of the Board of Managers we make the following extracts:

The whole amount appropriated by the Legislature up to this time is five hundred and fifty thousand dollars (\$550,000), as follows:

By the Legislature of 1870.....	\$ 50,000 00
By the Legislature of 1871.....	100,000 00
By the Legislature of 1872.....	200,000 00
By the Legislature of 1873.....	200,000 00
Total.....	<u>\$550,000 00</u>

The expenditures have been as follows:

To December 31, 1871.....	\$ 99,375 04
To December 31, 1872.....	225,531 23
To December 31, 1873.....	221,114 02 <u>\$546,020 39</u>
Leaving a balance unexpended of.....	\$3,979 61
Balance in the hands of the Treasurer of the Board.....	\$1,979 61
Balance in State Treasury.....	2,000 00 <u>\$3,979 61</u>

The work of construction on the buildings was resumed on the first day of April, and closed on the first day of November last.

The walls of the administration building and male wings "A" and "B" are laid up two full stories. The window sills are also laid up on the third story of the wings. The corridors connecting the administration building with wing "A," and that from the latter to wing "B," are laid to their full height and coped.

The walls of the rear buildings, consisting of the kitchen, fan room, engine room, boiler room, coal room, work shop and bakery, are all laid up and enclosed, with their roofs on. The walls of the fire-proof corridor connecting the kitchen with the male wing "B" are laid, the arches turned and walls coped. The chimney, which is to be one hundred and ten feet high, is up thirty feet. The horizontal flue leading from the engine room, and that connecting the bakery with the main flue, is finished. The large plenum connecting the fan room with the main buildings is completed. Water pipes connecting with the city mains have been introduced into all the above buildings, while tile sewer pipes have been laid in the main buildings and kitchen, ensuring them thorough drainage.

The foundation walls of the male wings "C," "D" and "E" are also laid up to grade and ready for the superstructure. The

walls not under roof are covered and well protected for the winter. Of the red sandstone used for the exterior facing of the building there is now on the ground cut and ready for use a quantity sufficient to carry up the third stories of the administration building and male wings "A" and "B." There is also about three thousand yards of sand on the ground—altogether material enough to carry on the work for about two months in the spring. There is also piled upon the ground walnut, cherry, maple, oak, chestnut and pine lumber, and joist and timber to the value of nearly forty thousand dollars; the quantity of each particular kind and the price paid for it was given in detail in our last Annual Report.

In that report the Board used the following language: "The work is in a condition to be pushed vigorously in the early spring, and if a suitable appropriation is made the walls of the administration building and of wings 'A' and 'B' can be completed and the buildings roofed during the year. The lumber already purchased will be suitably seasoned, so that the interior can be finished during the winter of 1873-74, and the asylum ready for the reception of patients in June or July following.

"To complete this work and carry forward the necessary improvements on the grounds, not less than five hundred thousand dollars (\$500,000) will be required. *If a less sum is appropriated the result will be the delay of another year before the buildings now in progress of construction can be occupied.*"

A less sum (\$200,000) was appropriated, and the result is as predicted. The Board was obliged in consequence to "make haste slowly" in forwarding the work. The contractors were compelled to work a much less force than could have been employed with advantage, and every portion of the work was more or less embarrassed.

They conclude their report as follows:

It is the earnest desire of the managers that these buildings, now so far advanced, may be completed and utilized at the earliest practicable moment. They respectfully and earnestly ask the Legislature to grant a further appropriation of not less than three hundred thousand dollars (\$300,000) for the current year. This sum they are confident will enable them to finish the buildings now approaching completion. They can not, without doing injustice to their own sense of duty, ask for a less sum, while the Legislature might without prejudice to the interests of the State increase it. By so doing it can the sooner make its previous expenditures available

and enable the managers at an early day to put the grounds and buildings in a condition to receive new patients, and also to relieve kindred institutions in the State now crowded beyond their capacity.

NEW YORK. *Fourteenth Annual Report of the State Lunatic Asylum for Insane Criminals: 1873.* Dr. JAMES W. WILKIE.

There were in the Asylum, at date of last report, 87 patients. Admitted during the year, 22. Total, 109. Discharged recovered, 11. Not recovered, 8. Died, 4. Total, 23. Remaining under treatment, 86.

Investigation regarding the causation of insanity shows that by the certificates of the prison physicians, more than one-half of the cases of insanity occur as the result of *Masturbation*. We quote the Doctor's remarks upon the subject:

If this be true, that a single cause exerts such a powerful influence for evil, it is an alarming fact, and some suitable and efficient preventive measures should be devised and adopted before the ruin of the convict is accomplished. Setting aside all humanitarian considerations, the interests of the State alone demand some action upon the part of those in charge of our prisons to avert so great a calamity. Not only is there positive loss of service to the State during the term of sentence, but the great mass of victims of this abandoned practice remain through life a public charge and drain upon the treasury of the State. No one cause so potent for evil should be left without at least an earnest effort for relief. When these cases reach the Asylum they are generally beyond restoration, and remain as objects of care rather than cure.

With these facts before us it seems a duty we owe the State and the unfortunate victims of vice committed to our care, to see to it that every exciting cause is removed and every restraining influence within our power interposed. The healthful exercise of the moral and intellectual faculties diverts the mind from indulgence of sensual passion. Individuals whose time is not properly occupied by labor, business or intellectual pursuits almost inevitably become the victims of the lower propensities. Idleness is the parent of vice.

This vice, I believe, often exists as a symptom of cerebral dis-

ease, and what is sometimes regarded as cause may be merely result. It often occurs as a morbid irresistible impulse, defying all efforts of the will toward restraint. Patients have entered this Asylum who had been subjected to most cruel local irritation, but the vice was not checked. Instruments of torture have been devised and secured upon the hands, but the habit continues. The will is perverted, and in defiance of irritations and instruments of torture, the victim of this vice is impelled on as by madness unmindful of the agonies he is enduring.

We have no knowledge of any such instruments, and were not aware that applications of the kind were made by the physicians to the prisons, or by other practitioners.

Traumatic irritation of the spinal cord may cause priapism with no assurance of virility; so may this impulse exist as the result of certain forms of cerebral irritation and not as the prompting of a healthful desire.

The fact that a large number of convicts are insane when committed to prison, is fully borne out by the statistics presented: "Of two hundred and seventy-six entries from the prisons, fourteen were cases of feigned insanity, twelve had been readmitted, leaving two hundred and fifty distinct cases of insanity. Fifty-four of these were certified as insane when received into prison, and fifteen had suffered from an attack of insanity previous to entering prison; while a number were transferred to this Asylum within a very short period of time after their admission to prison, of whose previous mental condition no account is given."

The Doctor's comments upon this statement of facts are judicious, and well worthy of reproduction and of careful attention. He gives an interesting case in which epilepsy was detected in a convict committed to his care, the existence of which had never been suspected even by the family or friends.

A young man was received into this Asylum August 27th, 1872, from one of our State Prisons who had been convicted thirteen days previously of assault to kill. On being arraigned, he put in a plea of acting in self-defense. No inquiry was instituted as to his mental condition, nor had any derangement of his mental faculties been suspected by his most intimate associates, and not until his entrance to prison was it detected. This young man labored under the delusion that he was assaulted and abused by his fellow-patients and the attendants in the Asylum; always complaining of his treatment, and ever ready to act on the defensive. Application for his pardon was made, which I opposed, on the ground that he was a dangerous lunatic. His brother, who made the application for his pardon, a gentleman of high respectability, informed me that no mental disease had been suspected prior to his imprisonment. Soon after entering the Asylum he gave unmistakable evidence of larvated epilepsy. The echo sign in epilepsy as shown in a paper read by Dr. Echeverria before the Association of Medical Superintendents, at Baltimore, in May last, was beautifully illustrated in several of his letters, and of great interest as showing the rapidity with which the nervous disturbance was developed.

This young man became rapidly demented during the last three or four months of his life. He was seized with convulsions while walking the hall August 15th, and died thirty-six hours thereafter *in status epilepticus*.

This case fully exemplifies the insidious nature of the disease, the dangerous character of those thus afflicted, and the necessity of the exercise of great care on the part of prosecuting or judicial officers.

The new building provided for by the Legislature is now enclosed; when completed, it will accommodate eighty patients.

The convicts seemed restive and intent upon escape, and it was a difficult task to keep them in their places and at work. Too many were employed, and contentions often existed as to whose turn it was to labor, a large number being constantly idle, and some most of the time in mischief. On so large a building it was impossible for the keeper's eye to be always upon so many, and they often took advantage of such opportunities to plan escapes.

I think it would have been a large saving of expense both to the State and to the building appropriation to have employed outside labor when we take into account the number of extra keepers required for the labor performed. Very few skilled mechanics were found among the number. After convict labor was dispensed with, patients from our halls were employed as laborers, and it was found that four lunatics could do the work of nine convicts upon the derrick and have plenty of time to rest.

PENNSYLVANIA. *Annual Report of the Pennsylvania State Hospital for 1873.* Dr. JOHN CURWEN.

There were in the Hospital, at date of last report, 467 patients. Admitted since, 158. Total, 625. Discharged recovered, 40. Improved, 31. Unimproved, 112. Died, 34. Total, 217. Remaining under treatment, 408.

The Hospital has been somewhat relieved by the transfer of eighty patients to the New State Hospital, at Danville. On the night before Christmas, 1872, the Institution suffered from fire in the entire destruction of the building, containing the bakery, wash house, ironing and dry room. It has, however, been rebuilt, and several improvements were made in its reconstruction. The health of the inmates has been good, for which, credit is given the improved means of ventilation by a fan. This has been kept in constant operation during the year. An appropriation of \$15,000 is asked, for making extraordinary repairs to the wards and buildings of the Institution.

NORTH CAROLINA. *Report of the North Carolina Insane Asylum for the year 1873.* Dr. EUGENE GRISSOM.

There were in the Asylum, at date of last report, 233 patients. Admitted since, 50. Total, 283. Discharged recovered, 11. Improved, 6. Unimproved, 3. Died, 13. Eloped, 2. Total, 41. Remaining under treatment, 242.

No additional provision has been made in the State, to accommodate the large number of its insane, mostly of the chronic class. There are now outside of the Institution, some five hundred insane people. "The overwhelming preponderance of chronic mental disease, of those under treatment here, as well as the applications for admission on *file*, over the acute cases, presents suggestions of a serious character. Perhaps not more than ten per cent. of our present household, and a smaller proportion even of the several hundred applications now pending, the history of whose cases have been forwarded and placed on file, can, with any confidence, be pronounced curable." During the year two hundred and sixty-three applicants have been refused, for want of room.

ALABAMA. *Thirteenth Annual Report of the Alabama Insane Hospital: 1873.* Dr. PETER BRYCE.

There were in the Hospital, at date of last report, 338 patients. Admitted since, 79. Total, 417. Discharged recovered, 45. Improved, 8. Unimproved, 5. Died, 29. Total, 87. Remaining under treatment, 330.

The figures given above show a higher per cent. of recoveries, upon the number of admissions, than during any year since the opening of the Institution, and is largely attributed to the fact, that preference has been given to acute cases of insanity, among the numerous applications. The report is mainly occupied with a recital of the financial embarrassment of the Institution.

The sum allowed by the State is \$4.00 per week per patient, and this is to cover all the expenses of the hospital. This amount, small as it is, has been reduced by direct loss to the Institution of \$20,000, mostly occasioned by the depreciated value of State warrants. This has entailed much inconvenience, and even priva-

tion upon the officers and patients. We quote from the report the following remarks :

In closing this branch of my report, I have but one other suggestion to offer, and to this, the most important of all, I invite your especial and attentive consideration. If this Hospital is still to be kept open for the reception and treatment of the indigent insane from the different counties in the State, it will be absolutely necessary to secure from the State, beyond peradventure, the payment of their expenses promptly and in current funds. If the harrowing scenes of the past year are to be re-enacted in the future—if the helpless inmates of the Hospital are to be half fed and half clothed ; their nurses and attendants driven by their own necessities to abandon their post of duty ; their creditors and contractors to continue clamorous for their dues, and threatening to discontinue their supplies, and their officers and Trustees to be perpetually harassed and discouraged by difficulties which they are powerless to remove—if, I repeat, this state of things is to continue another year, then it were better, far better, both for the reputation of the State and the well-being of these poor, dependent creatures that the doors of the Hospital be closed against their further admission, and those already here returned to their respective homes.

KENTUCKY. *Report of the Fourth Kentucky Lunatic Asylum :*
1873. Dr. C. C. FORBES.

This Institution was created by an act, passed February 5, 1873, which provided for the changing of the "State House of Reform for Juvenile Delinquents," into an Asylum to receive the Chronic Insane. One ward was opened on the eighth of August, by the reception of twenty-one male patients, and the Institution was declared regularly opened, by proclamation of the Governor, on the fifteenth of October, and was speedily filled to its utmost capacity. There have been admitted 159 patients, of whom four have died, and three have escaped. The buildings consisted of a "central, or main building," "the shop" and "the school building," and have been remodeled so that the central building

now contains three wards, with accommodations for eighty patients. The officers' quarters are located in the front portion, and the kitchen and laundry in the basement. The "shop" building was divided by a corridor in the center, with dormitories on either side, to accommodate forty-five patients. A day room was arranged in the basement, and a common dining room, in which all the patients in the house take their meals. The school building was similarly divided as to wards, and has a capacity for about thirty-five patients. The shop and school buildings are occupied by the men, and are distant from the central building, the one fifty and the other seventy-five yards. The sleeping rooms for patients are all associate dormitories. The Institution is spoken of as a representative of the block or pavilion plan. The Doctor asserts diffidence in recommending it, though he enumerates some arguments in favor of it, and confesses to an inability to appreciate any serious inconvenience in the system, provided, however, the different blocks are located within reasonable proximity, and furnished with facilities for inter-communication. The removal of restriction as to the class of patients to be received, as this has been designated an asylum for the chronic insane, is advised by the Doctor. The reasons therefor are found in the greater economy in transportation, and the fact that the provision made in the other asylums for the treatment of acute cases, is in excess of the demand, and disproportionately great, when compared with the number of the chronic insane.

CALIFORNIA. *Biennial Report of the Insane Asylum for the State of California*: 1873. Dr. G. A. SHURTLEFF.

There were in the Asylum, at date of last report, 1,090 patients. Admitted to October 1, 1872, 506. Total, 1,596. Discharged recovered, 240. Improved,

30. Unimproved, 3. Eloped, 12. Died, 188. Total, 473. Remaining under treatment, 1,123. Admitted to July 1, 1873, 401. Discharged recovered, 185. Improved, 18. Unimproved, 1. Eloped, 12. Died, 152. Total, 368. Remaining under treatment, 1,156.

Dr. Shurtleff is awaiting the erection of the new Institution at Napa, which will afford relief to the overcrowded condition of the Asylum, "with somewhat of the fearful suspense of the mariner upon an overladed and sinking ship, who, though he sees the approaching succor in the distance, is yet doubtful whether he can hold out until it reaches him." The recoveries under such unfavorable circumstances are unusually large, being forty-six per cent. on the admissions. From the causation as given in the commitments, and his knowledge of the history of cases, the opinion is expressed that intemperance has been the efficient cause of twenty per cent. of the admissions. The subject of care of insane convicts is treated at some length, and the conclusion reached that separate provision should be made for this class in connection with the prison, and under the immediate charge of its medical officer.

WISCONSIN. *Fourteenth Annual Report of the Wisconsin State Hospital for the Insane*: 1873. Dr. MARK RANNEY.

There were in the Hospital, at date of last report, 373 patients. Admitted since, 212. Total, 585. Discharged recovered, 39. Improved, 76. Unimproved, 134. Died, 22. Total, 271. Remaining under treatment, 314.

Although 117 patients were transferred to the new Asylum at Oshkosh, the Institution is now filled to its proper capacity, and additional room is demanded for the reception of numerous applicants. The necessity and advantages of early treatment in an asylum, both

in a curative and economic point of view, are fully stated. The demands for greater facilities for classification is made an argument for the speedy completion of the Northern Asylum, and for enlargement of this Institution. Suggestions are made regarding various improvements and additions to the buildings and grounds of the Asylum. The necessity of strict supervision over, and accountability of a Superintendent to a Board of Trustees, governed by a sense of their great responsibility to the public and to the patients under their care, is strongly urged. The great value to an institution of faithful and competent attendants, and the difficulty of obtaining them is the subject of some well pointed remarks, and a scale of wages making an annual increase of compensation proportioned to length of service, is recommended. Dr. Ranney's report gives evidence of his careful attention to the wants of his patients and employés, and of a full appreciation of the requirements, demanded to make the Institution of which he has charge a model Hospital, for the cure and treatment of the insane, and one embodying the improvements which have been introduced in construction, since the date of its erection.

WISCONSIN. *First Annual Report of the Northern Hospital for the Insane*: 1873. Dr. WALTER KEMPSTER.

There were admitted during the year, 214 patients. Discharged recovered, 2. Improved, 1. Unimproved, 1. Died, 5. Total, 9. Remaining under treatment, 205.

This Institution is now filled to its utmost capacity, and the pressing demands for admission are such, that recent cases can only be received upon the removal of those of the chronic class. One hundred and seventeen chronic cases were transferred from the State Asylum,

at Madison, and the remainder were received from the counties of the district. Great disappointment was felt that all the insane could not be accommodated, and every effort has been made to enlarge the capacity of the Asylum. The rooms set apart as an "Infirmary," a "Museum," the day rooms and parlors of the wards, have been appropriated as associate dormitories. It is to be regretted that the Institution is thus early filled with cases which present so little hope of recovery, as it is thus crippled in its ability to care for that class, which requires the advantages of a curative hospital. The Doctor, however, fully appreciates the disadvantage under which he labors, and treats of it at length.

Various topics are touched upon briefly, as the causation and the treatment of insanity, the frequency of its occurrence, and the expectation of life among the insane; also the necessity of increased hospital accommodations as shown by the number of the insane in the State, and the location of hospitals as to distance. This presentation of general principles is followed by a statement of the labor accomplished during the year, and of the demands for the future. It does credit to the Doctor, and will do much to increase the confidence already felt in his ability, to conduct the affairs of the Institution and establish it upon a secure basis. We quote from the Managers' Report, their remarks concerning the Superintendent.

And it is proper to say in this connection, that we regard ourselves, as well as the people of the State, eminently fortunate in starting out in the working operations of the Hospital, with the services of so competent a man in all respects. He came to us fitted by experience in the care of the insane, from one of the first institutions of the kind in the United States, that of Utica, N. Y., and during the labor of preparing the building for service, he gave us invaluable aid in all the departments of labor. Since the Institution has gone into operation, when his services more especially

as a physician have been called in, he has shown how fortunate we have been in our choice. We are gratified to bear testimony to his untiring industry, his evident culture and skill in his profession, his unvarying kindness in treating his unfortunate patients, and his general fitness for the difficult and responsible duties to which he has been called.

We are glad to see that Dr. Kempster proposes, thus early in the history of the Institution, to institute pathological investigations by means of the microscope and photography, in pursuance of the plan already adopted in the Asylum at Utica. The Managers of the Asylum show a commendable spirit in fully endorsing the suggestion of the Superintendent in regard to furnishing the necessary apparatus. They use the following language, quoted from a report of one of the visiting committee, "who is himself a physician of high reputation":

Having now completed my quarterly examination for this year, I would, both as a medical examiner, and as a citizen to whom the success of the Institution is very dear, call your attention to what I consider the great duty of a Board of Trustees, viz: To make a complete success of an Institution of this character, they must, with all their other duties, become nurseries for scientific attainment. I say, right where the experience is, there let the difficulties, of whatever nature, be sought out. I would herewith most earnestly entreat that there be facilities furnished to the Superintendent to inaugurate and organize the systematic carrying out of all chemical and microscopic examination—also photography and photo-micrography. For I most fervently believe that this will prove the great highway whereby we may arrive at the highest and best treatment of insanity. Thus you may be benefactors not only to the unfortunates within your walls, but to the whole scientific world.

WASHINGTON TERRITORY. *Report of the Asylum for the Insane of Washington Territory: 1873.* DR. STACY HEMENWAY.

There were in the Asylum, at date of last report, October, 1871, 23 patients. Admitted since, 41. Total,

64. Discharged recovered, 13. Improved, 4. Not insane, 1. Eloped, 4. Died, 6. Total, 28. Remaining under treatment, 36.

“Under the present system of management one party furnishes the food and raiment, and selects persons to serve as attendants. The other party is required by his articles of agreement with the Territorial authorities, to exercise full control over the medical, moral and sanitary management of the Institution. In consequence of this arrangement, though, perhaps, the best that could have been made under the existing laws, there exists *glaring inconsistencies*.” In the report of the year the Superintendent asks from the Legislature the passage of a law establishing a regular hospital organization, and suggests as a basis the propositions passed by the Association of Medical Superintendents, in May, 1853. He supports this request by showing the defects and difficulties inherent in the present system, and quotes from the statements of others regarding the necessity of having a Board of Trustees, and a Superintendent, entrusted with the full power of management and control, and held to a strict accountability. His report should convince the Legislature of the necessity of action, and the adoption of the proper form of organization.

REPORTS OF FOREIGN ASYLUMS.

Report of the County Lunatic Asylum at Prestwich: 1873. H. ROOKE LEY.

Annual Report of the County of Warwick Pauper Lunatic Asylum: 1872. W. H. PARSAY, M. D.

Forty-Third Report of the Belfast District Hospital for the Insane: 1873. ROBERT STEWART, M. D.

Fifty-Third Annual Report of the Dundee Royal Asylum for Lunatics: 1873. JAMES RORIE, M. D.

Thirty-Third Annual Report of the Crichton Royal Institution and Southern Counties Asylum: 1872. JAMES GILCHRIST, M. D.

Twenty-First Report of the Derbyshire County Lunatic Asylum: 1872. J. MURRAY LINDSAY, M. D.

Seventy-Seventh Report of the Friend's Retreat, near York: 1873. J. KITCHING, M. D.

NEW SOUTH WALES. *Report of the Hospital for the Insane, Gladesville*: 1872. F. NORTON MANNING.

TRANSACTIONS OF SOCIETIES, PAMPHLETS, &c.

Transactions of the Minnesota State Medical Society: 1873.

This volume contains several articles of interest. The first one is by a member of our own specialty, Dr. C. K. Bartlett, Superintendent of the State Insane Asylum, and is entitled, "Insanity as a Symptom of Brain Disease, its Physical Cause and Treatment." He first speaks of the difficulties which attend the investigation of diseases of the brain and nervous system, and of the theories regarding insanity. The statement of his subject, in the words previously given, fully defines his own position. "The three leading causes of insanity are, hereditary diathesis, brain work, and reduced vitality." These views are supported by facts and principles generally received, and which carry conviction by their statement. The subject of treatment is disposed of by reference to a few underlying general principles. It will be valuable to the profession in inculcating correct theories and ideas, upon the subject of insanity and its treatment.

The other articles are the address of the President, Dr. W. W. Mayo, on "The Relation of Physicians to the Public and to each Other," a prize essay by Dr. Franklin Staples, on "Catarrhal Inflammation as an Element in Uterine Disease," and one by Dr. C. H.

Hand, on "Phthisis as related to Syphilis and Scrofula." These are followed by reports of Committees on various subjects in Surgery and Medicine.

In the character of the articles, and the manner of presentation, the State Society of Minnesota has taken high rank among the best of our medical organizations.

Proceedings of the Medical Association of the State of Arkansas.
[Fourth Annual Session]: 1873.

The sessions of the Society extend over a period of three days, and a large part of the proceedings is occupied with the minutes of the Secretary. The President, Dr. D. A. Linthicum, delivered the annual address. It was of a practical character, and related to the establishment of fees for special services and to matters of local interest to the members. A few cases are reported, and a paper of considerable length on the "Vital Statistics of Little Rock," is presented.

Medical Society of Washington Territory. [Second Annual Proceedings]: 1873.

This is a neatly printed pamphlet of about fifty pages. It contains the "President's Address," an article on "Compound Fractures," a report of "A Case of Ligature of the Left External Iliac Artery for Aneurism," a case of "Double Hernia in the Left Pleural Cavity," and the report of the Superintendent of the Insane Asylum, previously noticed.

Felonious Homicide: Its Penalty and the Execution thereof Judicially. By ALONZO CALKINS, M. D. [Read before the Medico-Legal Society of New York.]

The author gives a short account of the different methods of capital punishment, which have been employed both in ancient and modern times. Among others, he mentions that of compression upon the carot-

ids and jugulars, as used by the Thugs of India, which produces absolute *syncope* in a few seconds, and that which may be denominated the chemical, by the administration of prussic acid. "Adopt either of these two resorts as specified, then would be secured in the conducting of our capital executions these *Four Pre-requisites: Certainty in Result, Celerity in Action, Painlessness in the Endurance, and the Maintenance of a decorous Solemnity.*"

Emotional Insanity. By DAVID DUDLEY FIELD. [Read before the New York Medico-Legal Society.]

The author gives his own idea of crime and punishment, and quotes the charges of the judges in several well known criminal trials, as showing the view entertained by the legal profession, as to what constitutes insanity and irresponsibility before the law. These opinions are to him so various and unsatisfactory, that Mr. Field is led to propose a standard of legal responsibility, which he presents in the following language: "was he *capable of knowing and refraining?*"

Dr. William A. Hammond in a monograph entitled, "Insanity in Its Relation to Crime," which was reviewed in the last number of the JOURNAL, on this same subject, gives utterance to the following: "Now any individual having the capacity to know that an act which he contemplates is contrary to law, should be deemed legally responsible and should suffer punishment." These are wonderfully similar ideas, and convey to the readers the impression that Mr. Field and Dr. Hammond, bear a strong resemblance to each other in their "mental processes."

From the question of responsibility, the author would exclude children, idiots and imbeciles, though the only criterion or measure of mental power is found

in this sentence. "There must be a capacity to reason, and a power of reason over the will sufficient to deter." If this means anything, it must mean "self-control." It seems, however, that in making this exclusion, he virtually yields the whole question, and must consider the insane, who, through disease, have lost this very power, as being irresponsible.

Regarding the medical definition of insanity he quotes the following from one, for whom he claims that there is no higher authority: "As no two brains are precisely alike, so no two persons are precisely alike in their mental processes. So long, however, as the deviations are not directly at variance with the average human mind, the individual is sane; if they are at variance he is insane." Now we know not how many of the medical profession would be willing to accept this as a scientific or correct definition, but we do know that to many it would seem the veriest twaddle. It is like a huge drag-net which would include within its meshes, the highest order of intellect, the man of eccentric habits of thought and action, and the imbecile and idiot, and leave entirely untouched a large class of lunatics who are the most dangerous to themselves and society. Our author then proceeds to divide insanity into the forms of perceptual, intellectual, emotional and volitional, and loses himself in his own divisions. We quote:

It should seem thence to follow that though there be such a kind of insanity as perceptual, and also such a kind as emotional, yet that neither of them taken by itself, nor both together, can justly exculpate the offender or relieve him from punishment. For example, if a person suffering under perceptual insanity thinks he sees an angel, and hears a voice, as of the voice of God, commanding him to kill his child, and acts in obedience to the supposed command, I insist that, nevertheless, he should be punished for it.

The mere statement of such a case is sufficient and needs no comment. We recognize in this the strong overpowering mastery of delusion, under which he "could not help" committing the act attributed to him.

The great difficulty under which so many labor, in judging of the responsibility of the insane, is found in the effort to make divisions, and distinctions of forms of insanity, in accordance with metaphysical theories regarding the mind and mental operations. And secondly, in ignoring the fact that the mental phenomena are but symptoms of disease of the brain, and not in any sense of the mind itself. Insanity may and does present many manifestations, but they are not so distinct that it is within the scope of human possibility to say in any case, that the emotions, or perceptive, or volitional faculties are alone disturbed.

Each case, in which insanity is supposed to exist, must be judged not by the average ordinary human intelligence, but by the changes produced by disease of the brain, when compared with the individual's own healthy and normal mental state. In instituting this comparison it will be found that all these various metaphysical divisions, which go to make up the sum total, called the mind, may be disturbed to a greater or less extent, and that there is no such definite line of demarkation, as would justify any such nomenclature as the one before us.

The statement regarding the government of insane asylums, that it is founded upon the assumption that the unsound mind is influenced by motives, and can be restrained by fear, is such a truism as must provoke a smile to those accustomed to treating the insane.

The author's idea of insanity must be equal to that of many people, who imagine that the insane are incapable of appreciating anything, and are much pleased

to find that a relative or friend, can recognize their faces. The processes of reasoning are often as well and perfectly carried out among the insane, as among the sane, the difference being that in the insane, the presence and power of a delusion leads to the adoption of false premises. They are often, outside the sphere of the delusions which characterize their condition, influenced by the same motives as the sane, though from the presence of disease, which may be a constantly variable element, they are unstable and do not always respond to the ordinary motives which govern the sane.

It is the fact that the Asylum by its very system of organization and discipline, supplies in part the control which the insane man lacks, and toward which he finds little aid outside its walls. This is not an argument in favor of the full responsibility of the insane, any more than the parental government and control exercised in the case of young children, is an evidence that they are to be held accountable before the law for all their actions and conduct. The paper as a whole can only be looked upon as a failure, in the attempt to elucidate the subject of responsibility, as all such must necessarily be in which the fundamental principle that insanity is a disease of the brain, is overlooked, and in which the effort is made to subdivide the mind into various faculties, and to place a limit by conventional boundaries, to the abnormal mental operations.

Cottages for the Insane.

An article upon this subject has recently appeared in the *New York Medical Journal*, by Dr. W. B. Hallock, Assistant Physician to the Connecticut General Hospital for the Insane. There is nothing new in this paper, and the arguments adduced are already familiar

to those who have been interested in this discussion, and to combat them would be "thrice to slay the slain." The problem of the proper provision for the insane, is one to which much thought has been given, by the most able and experienced men in this and other countries, for many years, and is still a vexed question. Dr. Hallock, however, disposes of it in a very summary, and to himself apparently satisfactory manner as follows:

"From what we have observed during an experience of some years with the insane, we are led to the belief, that the question of provision is one easy of solution; indeed, we can see no reason why it should be considered so difficult and complicated, unless it be that their real needs with respect to buildings are not understood."

A little longer experience may enable him to "*see*" more, and we hope, more clearly. It is said, "a single swallow does not make a summer," and the placing a few patients selected from the three or four hundred of a State Institution, as has been done at Middletown, Conn., does not solve the question. This seems to be the sum of his observations. He disposes of the Association of Superintendents with one stroke of his trenchant pen. They are old deluded noodles, poor fellows. "Some writer has said that the present methods of distributing charity, as a whole, are costly and bungling; they waste more than they help. This truth is especially applicable to the wholesale policy of the Association of Superintendents of American Institutions for the Insane. This Association is still reluctant to give up this one remaining traditional idea of prison walls indiscriminately surrounding the insane."

On Anæsthesia, Hyperæsthesia, Pseudo-Æsthesia, Chiefly as met with among the Insane. By W. A. F. BROWNE, M. D., F. R. C. S. E., late Commissioner in Lunacy for Scotland.

This is the substance of a lecture delivered to the members of Prof. Laycock's Class of Psychological Medicine, on their clinical visit to the Crichton Institution for the Insane, Dumfries, July 26, 1873. It consists of a clinical record of cases, showing the disturbances of sensation frequently existing among the insane. It contains many interesting and unique cases, and shows research and labor in its preparation.

This paper is from the pen of one of the oldest and ablest men of the profession, and shows the controlling and absorbing interest he still retains in the labor to which he has devoted his life.

Expert Testimony. By THADDEUS M. STEVENS, M. D. [From the *Indiana Journal of Medicine*, for October, 1873.]

The special form of Expert Testimony treated of, is that relating to toxicological examinations. Nearly one-half of the pamphlet is occupied with a reference to the Wharton trial.

An Investigation Concerning the Mechanism of the Ossicles of Hearing and the Membrane of the Round Window. By CHAS. H. BURNETT, M. D., of Philadelphia. [Reprinted from the *Archives of Ophthalmology and Otology*: Vol. II., No. 2, 1872.]

On the Construction and Revision of By-Laws of the Retreat for the Insane at Hartford, Conn., with letters on Hospital Organization and Government. [Printed for private use]: 1873.

Peristaltic Arterial Action: Objections to this Theory. By JOHN J. MASON, M. D. [Reprinted from the *New York Medical Journal*, December, 1873.]

On the Granular Cell found in Ovarian Fluid. By THOMAS DRYSDALE, M. D., of Philadelphia. [Reprinted from the *Transactions of the American Medical Association*.]

Changes of Temperature and Pulse in Yellow Fever. By JOSEPH JONES, M. D., of New Orleans. [Reprinted from the *American Practitioner*, for September, 1873.

Report of the Health Officer of the City and County of San Francisco, for the year ending June 30, 1873.

Annual Report of the Commissioners of Emigration of the State of New York: 1873.

REVIEWS OF BOOKS, NOTICES, &c.

The Principles and Practice of Medical Jurisprudence. By ALFRED SWAYNE TAYLOR, M. D., F. R. S., Fellow of the Royal College of Physicians, Lecturer on Medical Jurisprudence in Guy's Hospital, in two volumes.

Also, *A Manual of Medical Jurisprudence*, by the same author. Seventh American Edition, by JOHN J. REESE, M. D., Professor of Medical Jurisprudence and Toxicology, in the University of Pennsylvania, &c., &c. Philadelphia, HENRY C. LEA: 1873.

It is seldom that a publishing firm is willing to take the risk, involved in placing before the public, at the same time, both an English and an American edition of the same book. This fact gives expression to the faith they have, in the value and saleability of the work thus lavishly put upon the market. Taylor's Jurisprudence has long been known to the members of the medical and legal professions. It was first met by them in their curriculum of studies, and has since occupied a place in many of their libraries. It was favorably received, from its short, comprehensive dealing with topics, which made it a ready book for reference, in regard to the general principles of the science. This feature of the book is still retained. The author, in his English edition, announces that several new chapters have been added,

increasing the number from eighty-seven to one hundred, and so enlarging the work as to demand it should be put in two volumes. New matter has been inserted in the sections on poisoning, wounds and personal injuries, and facts and cases have been added to the chapter of deaths from Asphyxia and Starvation, including the case of the *Welsh fasting girl*; also, to the chapters on Criminal Abortion, Infanticide, Insanity and Life Insurance. Where cases are not fully quoted, references have been made showing where additional information can be obtained. Some new engravings have been introduced. In the preface to the American edition, the author gracefully acknowledges his indebtedness to Dr. T. Romeyn Beck, whose work on Medical Jurisprudence antedates the time when lectures upon this subject were given in England, and who was the leading authority in both countries. He says "in looking back over the forty-eight years since I received my first lesson in Medical Jurisprudence, from the work of the late Dr. T. R. Beck, it is a great gratification to me to feel that I have been able to contribute to the literature of the science, and that my contributions have been so highly appreciated in the country which gave birth to Dr. Beck. For many years his was the only book on the subject in England and America." "Dr. T. R. Beck has passed away, but his work which had reached a tenth edition in 1851, will carry down his name to future years, as one of the most erudite and distinguished writers on Medical Jurisprudence." We are glad to note such words of recognition of the worth of one so well known, and so fully appreciated by the medical and legal professions, in America. For several years he was the editor of this JOURNAL, and the library of the Asylum at Utica, contains the collection of articles and cases, upon the subject of Medical Jurisprudence,

which constituted the basis of his work, amounting to seventy-six large volumes. We would also state, in this connection, that a new edition of Dr. Beck's work is being prepared by Dr. Chas. H. Porter, of Albany.

There is much to commend in the great variety of topics treated, and in the conciseness of statement which characterizes the work, but in some instances other qualities have been sacrificed to these. Cases are sometimes too much condensed, and references to them and to works, are sometimes made without sufficient explanation to make them fully intelligible. In all the volumes we find comparatively few American cases cited. Prof. Reese, however, has not forgotten the celebrated Wharton trial, which has been so often brought to the notice of the profession, from the statements and counter statements of the different experts engaged in the case. The section on Insanity is largely reproduced from former editions. The new matter is a great addition to the work, and is in consonance with the advance of science. The classification time honored in use, of Mania, Monomania, Dementia and Idiocy, is still employed, and the subdivisions into various forms of mania noticed, though, for the most part, not sustained by the author. We are disappointed that in a work written by medical men, the constant dependence of insanity upon morbid physical states is not more fully and positively stated. It is, however, recognized in the chapter on Homicidal Mania, in which, after enumerating the circumstances attending certain crimes, the writer says: "These are the main features of crime, and unless there is independent evidence of mental disorder, or of some bodily disease affecting the brain and destroying the power of self-control, the conclusion must be that the person is sane and responsible."

The doctrines of "irresistible impulse," and of "im-

pulsive insanity," receive little favor as they "have been strained in recent times to such a degree as to create in the public mind, a justifiable distrust of medical evidence on these occasions." This is a just rebuke, and had it been pointed with illustrative cases, which have occurred in this country within the past few years, would have acquired far greater significance.

We can but regret that the author has not noticed the subject of epilepsy, as it has acquired so much importance in its medico-legal aspects. Several cases have recently occurred, in which the presence of epileptic insanity has been pleaded in extenuation for crime. These trials and the articles written, have led the Association of Medical Superintendents to give special consideration to this disease in its various manifestations. From the prominence and frequency of these cases in judicial tribunals, the subject should have been fully presented in a work of the pretensions of the one before us. To the American edition we must give the preference as regards the size of the type and general appearance. In the English edition, the leaves are as usual uncut, the margins of the pages narrow, and the type quite small. It is, however, much fuller in statement and reference. The work is creditable to the publishers, and we doubt not will meet with a ready sale.

An American Dictionary of the English Language. By NOAH WEBSTER, LL. D. [Thoroughly revised and greatly enlarged and improved, by Prof. CHAUNCEY A. GOODRICH, D. D., late Professor of Rhetoric and Oratory, in Yale College, and NOAH PORTER, LL. D., President of Yale College.] Published by G. & C. MERRIAM: 1873.

The name of Noah Webster has long been a household word among all the English speaking people. Since the beginning of the present century, his works

have successfully competed for public favor, and have been recognized both at home and abroad as standard authorities. After preparing a spelling book, grammar, and reading book, the first published in America, he devoted himself to the great work of his life-time, the American Dictionary of the English Language, which was published in 1828. It at once appeared in England where a recent writer in the *Quarterly Review* states, "successive re-editing has as yet kept it the highest place as a practical dictionary." In 1847, it was revised and edited by Prof. Chauncey A. Goodrich, of Yale College, and afterward, in 1864, by Profs. Goodrich and Porter, who were assisted by men well known in the various branches of science. It has been carefully revised and improved by the addition of new matter, the introduction of terms to keep pace with the advance of science, and by illustrations intended to supplement the use of language, and more fully to convey the meaning of words and terms. In the new, illustrated edition before us, we have the highest development of scholarly attainment, in the production of a work which is unsurpassed in the English language.

On the Mechanical Treatment of Disease of the Hip-joint, by CHARLES FAYETTE TAYLOR, M. D., Surgeon to the New York Orthopædic Dispensary and Hospital, &c., &c. New York, WILLIAM WOOD & Co.: 1873.

This is a monograph of sixty-two pages, and gives us, as the author promises in his preface, a full exposition of the mechanical treatment of the disease under consideration. It is based upon the results of two hundred and thirty-six cases occurring in the Orthopædic Dispensary and Hospital. From this extensive experience the principles and statements made, are deduced. The disease, so far as treatment is concerned,

may be regarded as essentially traumatic. The character of the joint, its functions and muscular relations are treated of, and from them are derived the indications for mechanical treatment.

1. To relieve the pressure in the joint due to muscular contraction, by temporarily destroying the muscular irritability and contractility.

2. To protect the joint from weight and concussion. Motion in the joint without pressure is not only not injurious, but it is highly beneficial.

To meet these demands, Dr. Taylor has devised an apparatus which is fully described and illustrated in the work, and its comparative advantages shown. We commend the work to those who are called upon to treat these unfortunate and too often neglected cases.

On the Convolution of the Human Brain, by Dr. ALEXANDER ECKER, Professor of Anatomy and Comparative Anatomy in the University of Friburg, Baden. [Translated by JOHN C. GALTON, M. A. Oxon., M. R. C. S., F. L. S. Clinical Assistant, West Riding Asylum, &c., &c.] London, SMITH, ELDER & Co., 15 Waterloo Place: 1873.

Clinical Researches in Electro-Surgery, by A. D. ROCKWELL, A. M., M. D., and GEORGE M. BEARD, A. M., M. D. New York, WILLIAM WOOD & Co. : 1873.

This is a small volume of some seventy-five pages, and is divided into two chapters, in which are recorded a number of clinical cases treated by electricity. The first chapter is devoted to cases of Electro-Surgery. The facts are simply stated without theory or bias. Some of the cases were successfully treated, while others received no benefit. The cases reported were those of nævi, goitre, fibrous, cystic and cancerous tumors, and ulcers. The method employed was by *central* galvanization and *electrolization*, by *working up*

the base, a method of application peculiar to the authors. The second chapter contains cases of the use of electricity in skin diseases. Both of these fields of investigation are comparatively new. Little has been known by the profession regarding them, as they have heretofore been almost exclusively given up to quacks, who, from some instances of hap-hazard success, have gained, in certain localities, a sensational reputation. We congratulate the profession that the subject is being investigated in this country, by men who have already gained a high standing, and who have placed their honor and reputation at stake; and we shall expect much from them towards giving it its proper position in medical therapeutics.

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S U M M A R Y .

—Dr. James C. Hallock resigned the Superintendency of the Ward's Island Emigrant Hospital for the Insane, on the first of December, 1873.

—Dr. Knapp, a former resident of Poughkeepsie, N. Y., has been appointed Superintendent of the Kansas State Insane Asylum, vice Dr. L. W. Jacobs.

—Dr. A. T. Barnes has been appointed Superintendent of the Southern Illinois Insane Asylum, located at Anna.

—Dr. James H. Denney has resigned the Superintendency of the Retreat for the Insane, at Hartford, Conn.

—Dr. D. B. Conrad, Superintendent of the Central Lunatic Asylum, located at Richmond, Virginia, resigned his position on the 15th of November, last. The Board of Directors appointed Dr. Randolph Barksdale, of Richmond, his successor.

—Dr. Edward R. Chapin resigned the position of Superintendent of the Kings County Asylum, on the 8th of November, 1873, and Dr. Carlos F. McDonald, the first Assistant Physician, was appointed to fill the vacancy thus created.

—Dr. Gorden Russell, of Hartford, Conn., has presented to the Retreat for the Insane, the sum of \$10,000 toward the erection of a memorial chapel for the use of its inmates.

—The new south wing for men patients of the Connecticut General Hospital for the Insane, has just been opened, with appropriate exercises. This completes the Institution and provides accommodation for four hundred and fifty patients.

—In the April number of the JOURNAL, the passage of a law creating two new asylums in Tennessee, was noticed. The Governor has appointed the Trustees for the Institution, to be located in the eastern portion of the State. The law makes wise provisions in the choice of site, for a farm of not less than three hundred acres, for a bountiful supply of pure water, for facilities for drainage, for location near a large city or town, for convenience of access by railroad, and for a plan in strict conformity with the propositions on construction of institutions, adopted by the Association of Medical Superintendents.

—We are pained to record the death of Dr. Chas. E. Van Anden, formerly Superintendent of the "Asylum for Insane Criminals" in this State. After his resignation of that position, some four years since, he engaged in the general practice of his profession, in Auburn, where, from his long connection with the Asylum, he had gained many personal friends. His death was occasioned by a peculiar and painful accident. On the 11th of October, while in the act of sneezing, he drew

into his throat a tooth, with the rubber plate attached. As all efforts to remove it proved unavailing, an attempt was made to push it downward into the stomach. This was supposed to have been successfully accomplished, and for a few days it was hoped he would recover. On the morning of October 19th, hæmorrhage began, which continued till 7 o'clock in the evening, when he died. The post mortem examination revealed the fact that the tooth and plate had lodged in the æsophagus at the bifurcation of the trachea. An abscess was formed at this point, which penetrated the lungs.

—Dr. William H. Rockwell, late Superintendent of the Vermont Asylum, died at Brattleboro, on the 30th of November last, at the advanced age of seventy-four years. For eighteen months he had been confined to his bed from a fracture of the thigh, caused by being thrown from a carriage, in May, 1872. Dr. Rockwell was born February 15, 1800, graduated from Yale College in 1824, and from the Medical Department of the same in 1830. He was soon after appointed Assistant Physician to the Retreat at Hartford, Conn., and in 1836, Superintendent of the Asylum at Brattleboro, Vt. The Institution had at that time but a corporate existence, and was without means for the erection of buildings. The endowment of \$10,000 was used in the purchase of the site, and in fitting up and furnishing the "White House," a building which was first occupied for the reception of patients. Aside from such limited aid as was subsequently rendered by the State, the Institution has reached the present magnitude, almost solely through his individual exertions. He devoted his life to the care and treatment of the insane, and has left a record of untiring industry, and self sacrifice to the profession of his choice. We learn that a

full account of his life and labors is being prepared for the Association of Superintendents, to which we shall gladly give space in the JOURNAL.

LOCATION OF THE NEW NORTH WESTERN HOSPITAL FOR THE INSANE, PENNSYLVANIA.—The location selected by the Commissioners and approved by Gov. Hartranft, is situated in the town of Warren, a mile and a half from the borough line, and about two miles from the Philadelphia and Erie Railroad. The site has a level frontage of some two thousand feet, and has been occupied by a private residence. Upon the road is a gateway and porter's lodge, and leading therefrom a roadway of about one thousand feet, lined on either side by trees, which constitute a beautiful archway. The location has the advantage of other improvements made by the former owner: a hawthorn hedge, and a grove in the rear of the buildings, which has been used for picnics. The water supply of the Institution will be derived from the Conewango Creek, the outlet of Chautauqua Lake. The sewage will be carried into it at a lower point. The farm consists of three hundred and thirty acres, of which three hundred or more are good arable land.

Sandstone of the best quality for building can be quarried on the premises, while timber and brick can be obtained within a few miles. The Hospital is easy of access by various railroads from all parts of the district which the Institution is designed to accommodate. The cost of the site was \$33,000.

THE CENTENNIAL CELEBRATION OF THE EASTERN LUNATIC ASYLUM, WILLIAMSBURGH, VIRGINIA, NOVEMBER 10, 1873.—The introductory address was made by Governor Walker, and the Centennial Address by

the Rev. Dr. Geo. T. Wilmer. Appropriate remarks were also made by Dr. Charles Nichols, Superintendent of the Government Hospital for the Insane, at Washington, and President of the Association of Medical Superintendents, by Dr. F. T. Stribling, Superintendent of the Western Asylum, Dr. D. R. Brower, Superintendent of the Eastern Asylum, Judge R. L. Henley and others. The exercises were held in the chapel of the Asylum, which was beautifully decorated for the occasion. Over the stand on the left was worked in evergreen, "1773," and on the right "1873." In the center was "E. L. A., Va," and on either side the names of "Siqueyra," "Barraud," "John M. Galt," "A. D. Galt," "John M. Galt, Jr.," "Henley," "Garrett," "Peticolas," the former Superintendents of the Asylum. Governor Walker claimed for Virginia, the establishment of the first public Asylum for the insane ever erected on this continent, and also wished to place on record the fact, that in providing the Central Asylum at Richmond, since the war, "*Old Virginia, in her deep poverty, had established the first Asylum for the poor colored man ever organized.*" Dr. Wilmer gave a historical sketch of the Institution, from which we learn, the first movement toward establishing the Asylum, was an act of the General Assembly, in 1769, appointing a Board of Directors and empowering them to purchase a tract of land and erect suitable buildings thereon. The present site was purchased, and under a plan submitted by Robert Smith, of Philadelphia, in 1770, the center building of the Asylum, one hundred by thirty-eight feet, and two stories high, was erected. Benjamin Powell was the contractor, and furnished all the materials, except stone steps, iron gratings, &c., which were brought from England. The building was completed in 1773, and turned over to

the Board, who elected James Galt, keeper of the Hospital. The first two patients were received October 12, and the keeper ordered to call in Dr. John Siqueyra, to visit the patients as often as might be deemed necessary. The cost of the building was £1,070, and of the material imported from England, £188, 13s. and 9d. In 1841 the functions of keeper and physician were blended in one officer, in the appointment of Dr. John M. Galt, who continued to be Superintendent till his death, in May, 1862. The address was interesting, and replete with fact and incident. We should have stated that full preparations had been made for the exercises of the evening, by a sumptuous dinner, given by the Superintendent, to the Governor, the Board of Directors and the invited guests. The celebration was an event long to be remembered by all who participated in its festivities.

—We have received the Prospectus of the "*Archives of Electrology and Neurology*," to be issued at first semi-annually, and to be devoted to the special departments of electricity in its relations to medicine and diseases of the nervous system. The aim will be to make this both a scientific and practical journal, that it may meet the wants of the general practitioner, and serve as a medium of communication to those engaged in the special study and use of electricity. The plan of the work is broad and extensive, as indicated by its title. It will contain discussions of principles, reports of cases, abstracts of papers in home and foreign journals, condensed reports of the proceedings of scientific societies, reviews of books, &c. &c. It will be edited by Dr. George M. Beard, of New York, who is so well known to the profession, in connection with Dr. Rockwell, as the author of the work, "*Medical and Surgical Electricity*."

This gives an assurance of the ability of Dr. Beard to perform all he promises in this new field of labor.

—“*The Chicago Journal of Nervous and Mental Diseases*,” is the title of a new journalistic enterprise. This is to be a Quarterly, of from one hundred to one hundred and fifty pages, and promises to furnish a full variety of original articles, and translations from foreign journals upon subjects relating to the mind and nervous system. The editors state, that as but one journal in the United States is devoted exclusively to this department of medicine, they are not misapprehending the needs of the profession in projecting this journal. The editors are Dr. J. S. Jewell, Professor of Nervous and Mental Diseases, in the Chicago Medical College, and Dr. H. M. Bannister.

AMERICAN JOURNAL OF INSANITY, FOR APRIL, 1874.

SYPHILITIC AFFECTIONS OF THE NERVOUS SYSTEM.*

This subject is one of such interest that we offer no apology to our readers for giving them, in a condensed form, the following lectures, which embody the latest researches relating to the effects of syphilis on the nervous system.

Syphilis is a disease which, from the time of its recognition or of its introduction into Europe, has largely engaged the attention of each successive generation of physicians, and the literature of the subject is of enormous extent. I can not pretend to give even an outline of the views which have been held as to its effects on the nervous system, but I may briefly indicate the course of opinion. Early writers on syphilis attributed vaguely to this malady almost all forms of disease for which they could not otherwise account, including many affections of the nervous system: vertigo, convulsions, epilepsy, apoplexy, paralysis, tremor, hydrocephalus, hypochondriasis, blindness, deafness, and various others are enumerated. Indeed, mention is made in their works of nearly all the manifestations now recognized, and probably in the fierce epidemic of syphilis in the fifteenth century the protean forms of the disease succeeded each other more rapidly than they are now seen to do, and thus the relation between them was more readily traceable. But, as has been well said, syphilis was made the "scapegoat of pathology," and upon its head were heaped

* *Lettsomian Lectures*, delivered at the Medical Society of London, by W. H. BROADBENT, M. D., F. R. C. P.—*London Lancet*, January 10, 1874, and subsequent numbers.

offenses not its own. When this was discovered, much that was true was thrown aside together with what was false, and for a time it was generally considered that the internal organs of the nervous system were not liable to be affected by syphilis. Hunter appears to have been of this opinion, as also Sir Astley Cooper, and for some time after this surgeon we look in vain for records of syphilitic disease of the brain, lungs, or liver. Little by little, however, within the last thirty years, clinical observation on the one hand, and pathological research on the other, have gradually identified the morbid changes resulting from syphilis in all the abdominal and thoracic viscera, in the brain and spinal cord, and traced in some measure the symptoms to which they give rise.

In considering the diseases of the nervous system connected with syphilis, the first question which arises is, At what period of syphilis are these affections liable to be introduced? Syphilis is considered to exhibit primary, secondary, and tertiary stages; or we speak of primary, secondary, or tertiary manifestations. These designations have relation, not to mere lapse of time, and not always even to order of appearance, but more strictly to order of lesion than to order of succession.

If we admit into our catalogue of nervous affections all the symptoms arising in the course of syphilis which are capable of being referred to the nervous system—the wandering rheumatoid pains felt in the muscular structures in early syphilis, the osteocopic symptoms of later stages, sleeplessness, irritability, change of disposition,—the liability is coëxtensive with the disease. We all recognize the distinction between the disorders of the nervous centers due to the circulation in them of poisoned blood and the diseases of those centers produced perhaps by some blood poisons; as, for instance, between the common delirium of enteric fever occasioned by a heated and impure state of the blood in the disease, and the exceptional meningitis set up by the same state. There is the same distinction in syphilis between the disorders of the nervous function and the morbid conditions of the nervous structures which it can induce. With this limitation, which will greatly economize my time, and permit me to devote more attention to the more important part of my subject, we shall find that nervous affections may arise either in the secondary or in the tertiary stage of the disease, but far more frequently in the latter. The affections of the two periods, moreover, are not identical, and I think the diversity will be found more considerable than has generally been supposed. The difference has been recognized by most

observers, and it is what might have been anticipated from the different clinical characters and different pathological tendencies of syphilis in its various stages. It is even better understood, as it appears to me, by reference to the theory of Mr. Jonathan Hutchinson, which brings syphilis into the class of continued eruptive fevers. According to this theory, the secondary stage of syphilis represents the fever—the tertiary stage so called, the effects produced upon the solids and liquids of the organism by the febrile process. The tertiary stage becomes thus, not a part of the disease itself, but a consequence of it, corresponding to the sequelæ of fever, such as dropsy in scarlatina and scrofulous affections after measles. Whatever view may be taken of tertiary manifestations, whether they are to be considered as the continuation or as the consequence of syphilis, the truth of the analogy between syphilis and continued fever appears to me to be undoubted. They have in common a period of incubation and a febrile stage which runs a more or less definite course. In this febrile stage, which is attended with symmetrical cutaneous manifestations and disseminated lesions in the internal organs, the poison is reproduced in the system, and the individual who is the subject of the disease becomes a source of contagion. Finally, one attack usually confers future immunity from the disease. Now, just as in fevers we may have pneumonia or meningitis not distinguishable by any anatomical characters from pneumonia or meningitis due to other causes, and recognized clinically by the supervention of these conditions upon those of the fever, so, in the secondary stage of syphilis, there may occur spinal or cerebral congestions or inflammations which have no peculiarity to indicate the syphilitic character of the affection, and this has to be ascertained almost entirely from previous history or from existing manifestations of syphilis. In tertiary syphilis, on the other hand, the morbid processes set up are altogether peculiar, as will be described, and the symptoms are often sufficient of themselves to establish the nature of the case in the absence of collateral evidence. As they will engage our attention later, when considering the affections of different parts of the nervous system, I shall not dwell longer upon them now, but proceed to the consideration of another question—whether, namely, there is any particular form of lesion or any particular course of the subsequent constitutional manifestations, which is attended with special liability to affection of the nervous system.

From the cases which have come before me, and from what I

have seen of syphilis affecting other organs, confirmed by inquiries which I have made of surgeons who have extensive opportunities of observing the disease in all its stages, I have formed an opinion that it is chiefly in persons in whom the secondary affections have been transient and insignificant or even absent, or in those in whom the tertiaries arrive early or primarily, that the nervous system is liable to suffer. I am corroborated in this view by the statement of Gross, Lancereaux, Braus, Buzzard, Moxon, and other writers, and it is scarcely possible otherwise to explain the entire absence of syphilitic history in many cases obviously of a syphilitic character.

The symptoms to which any disease of the nervous system gives rise will result primarily from derangement of function of the part affected, but the kind and degree of such disturbance will be greatly influenced by the nature of the morbid process and by its rate of progress. It will make a great difference, for example, whether a tumor at a given situation in the brain or cord has its starting-point on the surface or in the substance, whether it increases rapidly or slowly, whether it grows at the expense of the nervous structure, causing no actual increase of volume, or adds to the contents of the cavities, and displaces and compresses the nervous matter. In considering, therefore, the morbid conditions to which syphilis gives rise, we have to take into account not only the morbid anatomy but the general habit of the disease. There are very large materials from which I might draw the account to be placed before you of morbid changes produced by syphilis in the nervous structures. I shall avail myself almost exclusively of those of Drs. Wilks and Moxon, whose contributions are at once ample, clear and comprehensive; indeed, I know nothing in pathology more admirable than their descriptions of syphilitic disease in the Guy's Hospital Reports. According to Dr. Wilks, in syphilis there is a disposition to the effusion of a low form of lymph or fibro-plastic material in nearly every tissue of the body. When this exudation comes to be examined after death, it has generally had a long existence in the organ in which it is found, and it presents under the microscope fibro-plastic elements, small nuclei, fatty granules, and some amorphous matter. As a rule, the deposits are hard and fibrous, and not soft, as is suggested by the term *gumma* or *gummatous* usually applied to them, but they may undergo secondary softening. There is nothing specific in the individual elements, and, indeed, the notion of a specific structural element in any disease is now generally abandoned; but character-

istic peculiarities exist which have been more exactly described by Dr. Moxon. He says:—"If one looks over a series of syphilitic changes, and compares them with any other form of changes, one finds that the syphilitic cases have characters by which they are practically easily distinguished." These characters I would state in Dr. Moxon's words: "1. Generally a small part of the organ is attacked, and the remainder is left quite free. The disease is strictly localized in the spot it affects. 2. Its outer part is composed of fibrous tissue, which can be seen to represent the natural fibrous supporting elements of the part in a state of augmentation, while the functioning elements of the part have dwindled away. It is local sclerosis. 3. Its central part shows the now celebrated caseous or gummatous faint yellowish matter of more and more elastic consistence and less and less friability and curdiness, generally rather sharply distinguished from the fibrous outer part, and sometimes softening down or calcifying. 4. There are signs of more acute inflammation in the immediate neighborhood, showing lymph, &c., or adhesions to the parts around. (3 and 4 may be absent.) Such patches, sharply contrasting with more healthy tissue immediately about them, and (5) distributed more or less widely in a variety of organs, but especially in the testes and liver, are not a general thing that could be passed over as a common accident. Their characters attract attention. A syphilitic gumma in muscle or brain is so unlike anything else that, if seen for the first time by one who knows the rest of the common run of pathological changes, it demands from him some recognition of its peculiarities. In short, it is not common, but specific in the strict sense of the word." There are other details, which I will not go through. What I have said is sufficient to describe the general characters of syphilitic changes as affecting the nervous system, the habits of locality, and rates of progress of the disease. "Syphilis attacks"—I am again quoting Dr. Moxon—"the surface of the brain and its membranes; it attacks them in limited spots, and it spreads slowly. The morbid changes are, on the one hand, adhesions of the membranes to each other and to the surface of the brain by means of an adventitious material of firm consistence and yellow color, which may be called lymph, but is harder, tougher, and more opaque. This exudation* may be found at any part of the surface; it invades and destroys the gray matter, interferes with the supply of blood, and when it occupies the membranes at the base of the brain, surrounds and involves the nerves in the intracranial part of their course." On the other

hand the syphilitic deposits may take the form of a distinct tumor of fleshy aspect, vascular externally, but presenting at the center the well-known gummatous character. Or the deposit may be small and circumscribed, but multiple, firm, and hard as to consistence, and yellow in color. Around the foreign bodies may be more or less inflammation or softening in the spinal cord. While the general characters are similar, there are differences of detail, which will be described later. But all these deposits of lymph, whether diffused or circumscribed, are met with in the tertiary stage of syphilis. Dr. Wilks, it is true, considers the disease to be characterized throughout by a tendency to effusion of lymph, and he makes no distinction in this respect between secondary and tertiary syphilis, explaining the fact that the deposits are only found in the tertiary stage by saying that it is only in this stage that sufferers die from syphilis, and that the post-mortem appearances may date from the secondary period. But if people do not die from secondary syphilis, they die during this stage from accident and other disease, and there ought to be abundant evidence of the presence of the deposits described; but, as I have already said, the differences in the clinical history of secondary and tertiary syphilis, and in the treatment required by those two stages of the disease, are such that nothing short of the overwhelming evidence we possess would convince us that there are only two periods of the same affection; and we may well look for differences in morbid anatomy. The differences found are, moreover, such as would be explained by considering secondary syphilis as fever, of which the lesions of tertiary syphilis are the sequelæ. Looking upon inflammation as the result of the disturbance of the relations between the blood and the tissues, in the one we have this relation disturbed by a morbid condition of the blood, in the other by a deteriorated state of the tissue-elements. In secondary syphilis, pathological conditions indeed are chiefly evidence of meningitis, old or recent, or of congestion, and very frequently no appreciable lesions have been discovered; the same conditions, in fact, produced by other blood-poisons in tertiary syphilis -- the peculiar localized changes described.

In addition, to the morbid changes in the nervous structure proper and in the vascular meninges, the brain or spinal cord may be invaded by gummatous tumors springing from the dura mater or the bones, or may be affected by extensive inflammation from carious bone. Or, again, the blood-supply may be cut off by obstruction of an artery from syphilitic disease of its walls.

The scheme I have laid down for myself in these lectures is to describe successively the effects of syphilitic disease on the nerves, on the spinal cord, and on the different parts of the encephalon. I am not aware that this has as yet been systematically attempted; but though it would have been easier, and perhaps safer, for me to have followed the beaten track, and speak of symptoms or groups of symptoms of affections of sensation, motion, or intelligence, of painful, convulsive, and paralytic affections, of affections of the nervous system without referring them to any definite seat and form of lesion, I have preferred to try to make use of our increasing power of localizing and defining the morbid conditions from the symptoms to which they give rise, and to make the organic changes the basis of my classification.

I come first, then, to the syphilitic affections of the nerves, which will comprise the neuralgias and the local paralyses. Of the pure neuralgias I have little to say; I do not think they are very common; they do not differ materially from the ordinary forms of neuralgia.

We may have local paralysis or syphilitic affections of every cranial or spinal nerve. With the exception of a transient loss of power sometimes seen in the ocular muscles, paralysis of individual nerves is almost invariably a tertiary phenomenon. It may be produced in various ways by a neuroma, by the inclusion of the nerve in a gummatous tumor—a very rare occurrence, of which I have seen a few distinct specimens; but usually the question of causation lies between periostitis about the orifice or exit of the nerve, the cranium, and the spinal canal, and meningeal exudation, involving the nerve during the intracranial or intraspinal part of its course. The latter is by far the most common cause, as will be seen from a consideration of the cases. Any points of the cranial nerves may be paralyzed from the consequences of syphilitic disease; but some much more commonly than others. I shall not here speak of the affections of the special senses—loss of the sense of smell, blindness, or deafness; these would alone form a subject large enough for a course of lectures. To speak only of vision; it may be impaired or lost in consequence of syphilitic inflammation of the choroid coat or retina, or from double optic neuritis consequent upon a syphilitic tumor in any part of the brain, or from pressure upon the optic tract. Deafness, again, which is connected with syphilis, may be due to affections of the auditory mechanism or the auditory nerve. Leaving these out of the question, then, the cranial nerve most frequently

affected is the third. Sometimes the only result is mydriasis, from loss of accommodation or dilatation of the pupil, or ptosis of the eyelid; but more commonly the entire nerve suffers, and, in addition to the ptosis and dilatation of the pupil, we have external strabismus and immobility of the globe of the eye. The twofold fact that the third nerve is the most frequently affected and often the only nerve paralyzed, and again, that portions of the nerve may suffer before the others, is explained by the habit of locality of syphilitic exudation, of which the interpeduncular space at the base of the brain traversed by the third nerve on its way to the cavernous sinus is the favorite seat, and it is conclusive evidence that paralysis is not due to the periostitis at the orifice of exit. The nerve also has been found compressed by a gummatous tumor of the sella turcica of the sphenoid bone, and I shall give an illustration as an example in which both nerves are affected. Paralysis of the sixth, the evidence of which is internal strabismus, is perhaps, next in frequency. Paralysis of the fourth, the remaining motor nerve of the eye, is not common; it is shown by double vision without an obvious squint, the two images being obliquely placed with respect to each other, and receding when the patient looks down, since this brings the superior oblique muscles into action and approximating each other, and finally they are equalized as the eyes are raised, so that vision is single when the patient looks up. Paralysis of the seventh, like oculo-motor paralysis, is more frequently caused by pathological conditions which are not of syphilitic origin. The features which it presents are too familiar to need enumeration, as also those of paralysis of the fifth. Paralysis of the ninth may be seen of course in the tongue, and the sternoc-hyoid and thyroid muscles; and of the eighth in difficulty of deglutition.

I will conclude with a few cases of paralysis of individual nerves; first, cranial; then cervico-brachial; and then of the lower extremities. *The first case is a case of paralysis of the left third nerve, slight right hemiplegia, and ultimately paralysis of the right as well as the left third.*

The next is a case of paralysis of the first and second divisions of the right fifth nerve, the fourth nerve, and the palpebral branch of the third nerve on the same side.

A seamstress, aged forty-seven, came as an out-patient to St. Mary's Hospital on April 27th, 1865, suffering from paralysis of the right seventh nerve, with partial implication of the ninth.

In January, 1871, a woman aged thirty-nine, came under my

care with paralysis of the left portio dura, preceded by pain in the forehead accompanied by pain and tenderness of the mastoid process. This was removed under the influence of iodide of potassium in a little more than a month.

As to the nerves of the upper extremity, I have seen several cases, a few of which I may detail.

In November, 1864, a woman aged forty-two, who lived an irregular life, though she did not acknowledge syphilis, came under my observation. She began to suffer a month previously from pain in the neck, down the right arm and forefinger, which had continued ever since. She was worse at night. The arm, also, was very weak, and could not be raised. The neck was stiff and could not be bent or turned in any direction without pain. There was tenderness along the left side of the spine, from the third to the seventh vertebra, and tenderness over the brachial plexus, probably from periostitis, or inflammation of the fibrous structures, involving the nerve roots. There was speedy relief and complete cure by iodide of potassium, and one or two blisters. I saw her subsequently with a node on the femur.

I may mention an example, a very interesting one, of syphilitic paralysis of the lower limb arising from affections of the nerves after leaving the spinal cord. It is a case of paralysis of the flexor muscles of the thigh and of the muscles generally of the leg and foot, loss of sensation over the front of the thigh and along the inner aspect of the leg.

In my last lecture I considered the various features of syphilis which will bear on the consideration of this disease as it affects the nervous system, and more especially the nature of the morbid changes to which it gives rise, and the habits of locality and rate of progress of the morbid processes. It remains now for me to apply the general conclusions there given, and to trace the effects of syphilitic lesions in the different nerve centers.

I showed and illustrated by a few cases the results when individual nerves or groups of nerves were involved. I did not attempt to distinguish between syphilitic neuralgia and neuralgia arising from other causes, and, so far as I am aware, no distinction exists, and the syphilitic origin is ascertained only by the syphilitic history.

In paralysis of individual nerves it is already a feature suggestive of a syphilitic source when it is made out that the cause of the paralysis lies within the cranial or spinal cavity and outside the nerve center, since tumors, which are almost the only other cause of such localized effects, rarely arise in the membranes.

Paralysis of the third nerve is so commonly a result of syphilitic disease about the base of the brain that this is the first supposition which arises when a case presents itself, and it requires elimination before other hypotheses are entertained. The same might be said of the other cranial nerves, except the seventh; and when more than one cranial nerve is affected the presumption of syphilis increases. Corroborative evidence, if not at once yielded by history or coëxisting lesions, would be sought in evidence of the constitutional condition produced by syphilis and in nocturnal pains. But I must proceed to the part of my subject which will engage our attention this evening—viz., the Syphilitic Affection of the Spinal Cord.

The range of symptoms producible by disease of the cord is not very wide. The tendency of most is to paraplegia; and to understand this we have only to remember that in some parts the cord is not thicker than the little finger, and that consequently a limited area of inflammation or a small tumor might involve a complete segment, which is all that is required to cut off the parts below from the volitional centers in the brain, and produce this form of paralysis.

Paraplegia is rather common as a result of syphilis (Bazin says that two-thirds of the cases are syphilitic,) and if taken early and treated energetically it is usually curable. It is therefore very desirable that, if possible, distinguishing features of syphilitic paraplegia should be pointed out.

It has been given as one of the characters of syphilitic paralysis generally, and of syphilitic paraplegia, that sensation is usually not impaired, and that reflex action persists; but this, if it were true as a matter of fact, which I shall show is not the case, would not constitute a peculiarity.

It will not occupy much time, and will conduce to clearness, if I enumerate the principal diseases which affect the cord, with their leading characters.

Myelitis—inflammation of the substance of the cord, if general, gives rise to a progressive loss of motor power from below upwards, with loss of sensation, preceded by tingling, the rectum and bladder and their sphincters sharing in the paralysis. There is little pain, at most a dull aching. Reflex action is abolished, and death occurs when the inflammation extends to the respiratory centers. Bedsores come on early.

A local myelitis, involving a segment of the cord, causes paralysis of the parts below, motor and sensory (or motor only for a

time,) with loss of control over the evacuations. Reflex action will persist, and may be exaggerated from concentration on the motor cells of the anterior nerve-roots of impressions which normally would have been partly transmitted upwards to the brain, and the paralyzed limbs often start involuntarily. If there be pain it is usually due, not to the myelitis, but to some extraneous cause—as, for example, disease of the vertebræ.

Spinal meningitis is attended with pain both along the spine and in the limbs, provoked by movements, especially such as involve motion of the spinal column. There are painful startings, or tonic contractions of the limbs or muscles of the trunk, and sometimes severe tetanoid spasms; sensibility is usually intensified. Paraplegia comes on late, and gradually if at all. There is loss of power in the bladder; not usually in the rectum.

Spinal congestion, according to Dr. Radcliffe, gives rise to sudden incomplete paraplegia, varying in degree, without loss of sensation or of control over the evacuations, but attended with aching in the back and limbs; but there may be a rapidly-progressive fatal paraplegia which leaves only traces of congestion.

Other diseases are, sclerosis of the posterior columns and cornua, and of the anterior white columns and cornua, the former giving rise to locomotor ataxy, the latter to wasting palsy.

There may again be softening of the cord, which, if non-inflammatory, is not to be distinguished from local chronic myelitis; or it may be the seat of tumors.

Syphilis may give rise to myelitis or meningitis, or to the small gummata or local scleroses described by Dr. Moxon; but, before speaking of these, the question of the dependence of locomotor ataxy on syphilis may be considered.

It has been stated that locomotor ataxy is a form of disease often set up in the cord by syphilis, but I find no support for this view in recorded cases, or in my own experience; and it is not the habit of syphilitic disease to follow in its advance any functional or structural arrangement in the part affected, or confine itself to a particular vascular area.

So far as I know, there is still less reason to attribute atrophic paralysis to syphilis than locomotor ataxy.

Coming now to myelitis,—the form most frequently seen in syphilis is subacute or chronic inflammation of a segment of the cord; but, in my opinion, acute, general or local myelitis may be caused by syphilis, especially in the secondary stage. This is a point which can not easily be proved. There is nothing peculiar

in acute myelitis to indicate its cause; and the disease being rare, it must be long before a sufficient number of cases can be collected in which it is associated with syphilis, even by observers alive to the possibility; while in the secondary stage a post-mortem diagnosis can not be made so readily as in the tertiary period of the disease.

Of acute local myelitis I give a case in which also the disease of the cord came on in the secondary period.

Paraplegia in secondary syphilis; acute myelitis of a segment of cord just above the lumbar enlargement; death from ulceration of bladder and extravasation of urine.

The paraplegia generally produced by syphilis is the result of disease slowly invading a segment of the spinal cord.

The course of symptoms is such as might result either from a limited chronic myelitis, or from softening, or from tumor.

The age at which syphilitic paraplegia occurs—namely, in early adult life or early middle age—excludes degenerative non-inflammatory softening.

Embolic softening, so far as I know, only occurs in connection with a very general distribution of emboli, and in acute fatal chorea or as in ulcerative endocarditis, when the effects produced elsewhere predominate.

The absence of angular spinal curvature and of the symptoms which disease of the bones or cartilages of the vertebral column produces before the cord is affected, excludes the most frequent cause of local myelitis not depending on syphilis, and we are left to decide from the history or from collateral circumstances between syphilis and rheumatism or exposure to wet and cold or injury.

In syphilis the condition present is probably a small gumma around which inflammatory softening is set up, and this explains the slow, halting, and unequal progress of the paralysis.

Conversely, paraplegia, at first slight, remaining long at a given point or advancing very slowly, then suddenly worse, mending a little again, perhaps spontaneously, or at least without specific treatment, but again increasing, and so pursuing its course to absolute loss of sensation and motion, while reflex action persists, should excite a suspicion of syphilitic mischief and should lead to energetic treatment, whether corroborative evidence is forthcoming or not.

While it was still uncertain whether syphilis could give rise to disease of the nervous system, and the purpose of inquiry was to establish a fact in medical science, no caution could be too great

in accepting evidence on the point; but the fact of causation once established, we are justified in going in advance of positive knowledge in our treatment.

CASE.

Paraplegia, probably from a syphilitic nodule in the middle dorsal region of the spinal cord.

Spinal meningitis is far less common than myelitis, and I have met with no acute case distinctly traceable to syphilis.

SYPHILITIC AFFECTIONS OF THE MEDULLA OBLONGATA AND PONS.

The intracranial prolongation of the spinal cord forming the medulla oblongata and pons Varolii is complicated in its structure and functions, not only by the separation of the nerve nuclei from each other in accordance with the specialization of their functions, but by the change in the relations of the gray matter and tracts of white fibres with each other, the decussation of the motor tracts, and the connection of the cerebellum with the spinal axis which is here effected. The consequence of lesions here, therefore, are more varied, and the causes which may give rise to them are increased in number; these parts, for example, may be affected by disease in the cerebellum or by aneurism of the basilar-artery. The increased dimensions of the spinal axis, moreover, permit of unilateral limitation of a morbid change; and this is not uncommon, although the two halves are fused together; while unilateral mischief is rarely seen in the cord, which is almost completely divided longitudinally by the fissures. Possibly, however, the vascular membrane which dips into the fissures is more efficient in communicating a morbid change than nervous structure. The general results of disease in the medulla and pons are, some interference with the sensory or motor tract proceeding from the cord to the sensori-motor ganglia, together with disturbances or abolition of the function of one or more of the nerve nuclei. It is seldom that we can come to the conclusion that there is disease here from sensory or motor paralysis of the limbs alone, or from affections of the nerves which have their origin in the intracranial part of the spinal axis alone, although this may be done occasionally when two nerves are simultaneously paralyzed the nuclei of which are conjoined or in close proximity, while the nerves take a different course after their emergence from the center, as in the case of the sixth and seventh. The grouping of symptoms arise from the inclusion in a diseased area of several nerve nuclei may be very varied. Usually the symptoms afford the means of making a very

precise localization of the lesion by the application of anatomical and physiological knowledge. Of course disease here is attended with great danger to life, the slightest interference with the reflex centers of the respiratory or cardiac movements being fatal. Sudden death, therefore, is common. The nature of the morbid change will be arrived at by considerations such as those made use of in determining the probable cause of paraplegia. A slow but irregular progress of the affection will favor the hypothesis of syphilis, but the morbid changes resulting from syphilis do not specially affect the surface of the medulla and pons, according to Dr. Moxon's dictum, but rather the substance. The progressive labio-glosso-laryngeal paralysis, which is the counterpart of locomotor ataxy, is not syphilitic; but it is quite possible for syphilitic change to involve the same parts of the medulla and give rise to analogous or even identical symptoms. The course of the disease will, however, be different.

CASES.

Paralysis (hemiplegic) of left face; lateral deviation of eyes to right; impairment of articulation and deglutition; loss of sensation in right face; sudden death; syphilitic tumors in pons and medulla.

Slight right hemiplegia of gradual access; impaired articulation; peculiar affection of respiration; sudden death.

Left hemiplegia with tonic spasm; impaired phonation and articulation (partial paralysis of eighth and ninth nerves.)

SYPHILITIC AFFECTIONS OF THE CEREBELLUM.

The symptomatology of disease of the cerebellum is singularly obscure, corresponding, however, in this respect with the state of our knowledge of the physiology of this nervous center.

I still adhere to the theory of its action, which makes it the seat of the higher and more complex coördinations of movements. It is not the sole origin of muscular coördination, as was at first inferred from the experiment of Flourens. The spinal cord coördinates in a distinctly purposive manner movements which respond to tactile or other cutaneous impressions, but when movements have to be guided by vision, some special and more complex apparatus is needed to bring muscular actions into relation with visual impressions, which are so far removed in character from tactile impressions (the immediate guides of muscular actions,) and are correlated with them only by inference and experience. This is essentially, though in a superficial and imperfect way, the view held

by Mr. Herbert Spencer, and repeatedly expounded and illustrated by Dr. Hughlings Jackson—namely, that the cerebellum is to space relations what the cerebrum is to time relations. Dr. Ferrier's interesting experiments, which appear to make of the cerebellum simply a motor center for the movements of the eyes, receive no support from the facts of pathology, and his results will probably find some interpretation more consistent with these. As in the cerebral hemispheres, so in the cerebellum, there may be extensive disease without obvious symptoms, or the symptoms may be such as will indicate only the existence of intracranial mischief, but afford no indication whatever of the seat of the lesion—viz., pain in the head, vomiting, and blindness; pain, however, being more constant as an accompaniment of cerebellar than of cerebral disease. The special symptoms of disease of the cerebellum, when such exist, are a peculiar staggering gait and a vague purposeless character of the movements generally, together with a marked loss of vigor and energy. A want of control and coördination of muscular actions is evident, but it differs from that due to loss of spinal coördination, and it is not increased by closing the eyes. In the latter stages, evidences of pressure upon the medulla, or of general intracranial pressure, may be superadded, due to effusion into the cerebral ventricles. In the cases of disease of the cerebellum which I have watched to a fatal termination, and in which I have made post-mortem examinations, the cause has not been syphilitic, and in the case I am about to relate, which I considered to be one of syphilitic affection of the cerebellum, no examination was made.

Headache; fits of uncertain character; hemiopia; later slight right hemiplegia; sudden death.

I have still to bring before you the affections which result from the effects of syphilitic disease upon the brain, its membranes, and blood-vessels.

I must here, again, briefly enumerate the morbid changes which syphilis induces in the brain. You will remember that the characteristic is a tendency to the exudation of a particular kind of plastic material, which may be diffused in the membranes at the base of the brain, or over the hemispheres, or may take the form of a distinct tumor, which will frequently have great resemblance, externally, to malignant growths. The "habit of locality," of the tumors, as well as of the diffused exudation, is to effect the surface, although gummata or syphilomata may be found in the substance of the brain; usually, however, in the more vascular parts—the gray matter of the corpora striata or thalami.

In the diffuse form we may have the membranes adherent to each other and to the convolutions by means of the firm plastic material described in my first lecture; and, as a result, the vessels of the pia mater are occluded, the supply of blood to the peripheral gray matter is diminished, and this undergoes atrophic change of some kind; or small indurations may invade the nervous structures from the membranes. Disease of the surface gray matter of the hemisphere may give rise to convulsions or paralysis, or the most varied intellectual or moral disturbances, according to the particular set of convolutions affected, and the nature and rate of progress and stage of the morbid process. This it is—the tendency to affect the membranes, and the varying intensity of the inflammation—which makes syphilitic affections of the brain so multiform.

The order in which I propose to consider the different cerebral affections resulting from syphilis, is as follows: Syphilitic Epilepsy, with cases; the graver results of Syphilitic Disease of the Membranes, first at the base, then over the hemispheres; Syphilomata or tumors; Cerebral Diseases in Infantile Syphilis; Syphilitic Thrombosis of Cerebral Arteries.

SYPHILITIC EPILEPSY.

As disease of the surface of the hemispheres commonly gives rise to convulsions, it is not surprising that convulsive seizures are among the most common symptoms in syphilitic disease of the brain. Attacks of convulsions may usher in a train of disorders of nervous functions, or may be one among many concurrent phenomena, or may form the only important symptoms. They may be produced by tumors growing either from the bones or dura mater or in the pia mater, or in the substance of the hemispheres, when these reach the surface; or by diffused exudation in the pia mater, or by thrombosis at the time of its occurrence and during the consecutive changes; or by slighter changes affecting the nutritive vigor of the hemispherical gray matter.

They are generally late manifestations belonging to the tertiary period of syphilis, though I have seen syphilitic epilepsy within a few months of the first evidence of constitutional affection. It is probably one of the slighter meningeal affections which is present in those cases of so-called syphilitic epilepsy in which the convulsive or epileptiform seizures are the prominent symptoms throughout, and not simply the precursors of graver forms of disease. It is probable, again, that syphilitic disease of the arteries not

giving rise to extensive thrombosis, may produce sufficient interference with the cerebral circulation to impair the nutritive vigor to a degree which will permit of the irregular discharge of nerve force, just as we see sometimes in the epilepsy of advanced life.

In epilepsy proper, or idiopathic epilepsy, there is frequently absence of any lesion to which it can be attributed, and it might be that in syphilitic epilepsy no appreciable lesion would in some instances be found. Authorities, again, are still at variance as to the nervous center in which the paroxysms start. I have not had the opportunity of examining, post-mortem, a case in which the epileptiform convulsions had been the only nervous symptoms due to syphilis, or met with a description of such a case; but although experiments seem to show that disorder of the cortex can not be the only cause of convulsions of the kind seen in epilepsy, it is certain that it is a frequent and important cause; and the associated symptoms make it certain that in syphilitic epilepsy the cerebral hemispheres are affected. These associated symptoms, together with the age at which the periodical convulsions come on, and syphilitic history, constitute the peculiarities which serve to distinguish syphilitic epilepsy. Before entering upon this point I will relate a few cases. The first to be given was under observation for several years.

Epileptiform convulsions; frequent attacks of petit mal, mental enfeeblement, at one time mania, together with syphilitic keloid, and tumors in the tongue.

Frontal node; epilepsy; attacks of giddiness and trembling, with mental depression.

Syphilitic sore throat; violent epileptiform seizures; pain in the head; giddiness; hesitating speech; weakness in the legs.

Nodes and other tertiary manifestations; epilepsy; headache; giddiness; strange feelings.

Syphilitic cachexia and ulceration of lips; epilepsy; petit mal; loss of energy and spirits.

I may now sum up the features of epilepsy symptomatic of syphilitic disease of the brain by which it may be distinguished from ordinary epilepsy.

As to the convulsive attacks themselves. There is nothing distinctive either in their character or frequency, or in the time of their access—i. e., whether nocturnal or diurnal. It is difficult to obtain a reliable description of a convulsive seizure, and the opportunities of watching an attack are very rare; but after careful

questioning of witnesses in cases of idiopathic and syphilitic epilepsy, I have come to the conclusion given, which is, moreover, that generally accepted. If this statement can be qualified in any way, it would be by the greater irregularity of the intervals between the fits.

An important distinction, however, exists in the fact that the intervals between the convulsive paroxysms, due to syphilitic disease of the brain, are not intervals of perfect health and freedom from nervous disorders. On the contrary, if there are not nocturnal headaches or osteocopic pains or sleeplessness, such as are caused by syphilis independently of disease of the brain, and diagnostic of syphilis, there may be frequent attacks of *petit mal*, often many times a day, or of convulsive twitchings of the eyes or of a limb, or merely of a vertigo or of faintness; or there may be a state of extreme and unaccountable nervousness and apprehension.

Again, we are often put on the track of syphilis by the age at which the epileptiform attacks first come on. It is matter of universal experience that true epilepsy is a disease of early life. If the predisposition, hereditary or otherwise, exists, the disease develops itself before the changes attending the full evolution of the sexual organs are completed. Dr. Russell Reynolds gives the following statement of the age at which epilepsy began in 172 cases:—Under ten years of age, 19; between ten and twenty, 106; between twenty and forty-five, 45; over forty-five, 2. But of the 45 cases in which the disease began, between twenty and forty-five years of age, by far the larger part began at or about the age of forty; so that in early adult life there is almost complete immunity from epilepsy. Now it is just at this period that the epileptiform seizures due to syphilis most frequently come on. When, therefore, a young adult begins to have convulsions of epileptiform character, we may at once suspect syphilis, and the suspicion will be strengthened if there are other nervous phenomena, and may be converted into certainty by evidences of past syphilis—nodes, perforations or cicatrices in the throat, white marks on the tongue, and pigmented scars at different parts.

Once let it be ascertained that epileptiform attacks, not accompanied by other evidences of cerebral disease than such as I have enumerated in the case I have given, are due to syphilis, and the prognosis is most favorable. There is always a liability to relapse, but I have known almost complete immunity from all symptoms to be enjoyed for more than ten years.

SYPHILITIC DISEASE OF THE MENINGES.

The cases in which the membranes are more gravely affected, and the surface gray matter invaded or involved, or deprived of blood, present an inexhaustible variety of symptoms from different combinations and successions of convulsive and paralytic affections and intellectual derangements. Speaking generally, paralysis of cranial nerves and of the limbs, gradual in their mode of access, are characteristic of disease about the base of the brain; convulsions and mental affections, of disease on the convex surface of the hemisphere.

No strict line of demarkation can be drawn between the cases in which there is extensive exudation in the membranes, and those in which the morbid process results in the formation of distinct tumors. In the former, the deposit frequently here and there takes the form of a nodule, which projects into the brain-substance, and a syphiloma is accompanied by or sets up changes in the adjacent part of the meninges.

CASE.

Spinal and cerebral pachymeningitis; epileptiform attacks; paralysis of cranial nerves; after a time slight general paralysis with exaltation; ultimately insanity.—A gentleman, whom I saw with Mr. Walter Coulson, had had tertiary forms of syphilis, and was in 1866 suffering from spinal meningitis, and from what I took to be general syphilitic inflammation of the dura mater. He had intense pain in the head—a feature of which was that it would come on instantaneously when he lay down, in the part of the head which was lowest, and when he turned round would instantaneously shift to the side which rested on the pillow,—his features had a heavy expression, and there was a slight paralysis of the right external rectus muscle, and double vision. He improved greatly under iodide of potassium; but he was imprudent, courted excitement, ate voraciously, and took little exercise. Early in 1867 he complained on several occasions of a sudden powerful stink encountered in the street which nearly overcame him, and he appeared not to have known fully what he was doing afterwards. These were the precursors of epileptiform attacks of great severity, which were usually preceded by optic illusions, generally of a dog, which he called by name, turned to look at, and then fell down. His mind also became confused and weak, and his limbs deficient in vigor, so that his walk was shambling. He was also willful, violent, and unmanageable. In June, 1867, I found him in high spirits, but speaking rather thickly, and the

words running together; the right side of the face was slightly paralyzed. His memory on some points was good. A month later he was more excitable and willful, and the mental derangement was more marked, the left arm still weaker, and the gait more shuffling. For some time his condition was similar in many respects to general paralysis of the insane: he walked feebly; his speech was indistinct; he was in a constant state of exaltation, talkative, extravagant, ordering all sorts of things, which his friends had to countermand, writing letters, and liable to rounds of violent excitement, and to occasional epileptiform attacks. He improved, however, went to Aix la-Chapelle, then to Australia in 1868-69, returning apparently well, but still not the man he had been formerly. He married, however, and now new troubles began. He was sexually impotent, jealous, easily excited to fits of violent anger, in which he would threaten and even strike his wife, or otherwise inflict pain upon her. At other times he would be kind and repentant. He was convicted of an indecent assault upon a woman in a railway carriage and sent to prison, and eventually had to be placed in an asylum. The most energetic treatment was pursued in the different stages. Iodide of potassium was given in doses which at one time reached a drachm, three times a day. Mercury also was given, and blisters applied at times. There was improvement, and he appeared at one time to be all but well; but, as has been seen, the damage to the cerebral gray matter was too great.

I should suppose in this case that the syphilitic tumors growing from the dura mater and projecting into the convolutions, constituted the principal cause of the symptoms, though there were doubtless other lesions.

CASES.

Slight unilateral convulsion followed by temporary hemiplegia; bodily and mental torpor and debility; slow, hesitating speech.

Fits of uncertain character, followed by left hemiplegia, and later by mental enfeeblement and general weakness.

Epileptiform attacks; slight hemiplegia; recovery.

Slight motor paralysis of left side, with impairment of sensation in entire left half of body and face; deafness; loss of smell and taste; recovery.

Syphilitic inflammation of dura mater.

SYPHILOMATA OR TUMORS.

Among the most interesting examples of syphilitic disease of the brain are those in which the morbid deposit takes the form of

a distinct tumor. The symptoms common to nearly all cerebral tumors, when any symptoms at all are present, are, severe pain, vomiting, and double optic neuritis; the pain being fixed in seat or radiating from one point, but variable in intensity at different times. Cases, however, are on record in which tumors have attained a large size without giving rise to abnormal phenomena of any kind; and although the concurrence for any long time of the three symptoms mentioned would be almost conclusive of the existence of tumor, the absence of one or other would not necessarily be conclusive to the contrary. Superadded to these general symptoms may be hemiplegia, motor or sensory, if the central ganglia are involved, or paralysis of individual nerves, if the tumor is situate at the base of the brain; or convulsions, if the surface gray matter of the hemisphere is affected.

The symptom of greatest importance is unquestionably the double optic neuritis; and, as Dr. Hughlings Jackson in particular has pointed out, it may for some time be the only symptom, or, if not quite alone, may be associated with symptoms so slight as to have no significance independently of it.

While we can not explain satisfactorily the mode of production of optic changes, their clinical associations and significance are better known. They commonly, almost constantly, accompany tumors, in whatever part of the brain they may form, and perhaps more constantly syphilomata than any others; they usually accompany abscess; very frequently meningitis, especially inflammation of the membranes at the base of the brain; rarely hæmorrhage, unless as a consequence of consecutive inflammation; rarely embolism or thrombosis, though in one case of thrombosis I have seen the most marked optic ischæmia. They do not accompany the molecular changes—inappreciable to the naked eye, and, as a rule, even by the microscope—which give rise to epilepsy or chorea. Syphilomata usually give rise both to general symptoms and to such as aid in fixing the locality, and I do not remember to have read of a case in which an unsuspected syphilitic tumor has been found after death. This is no doubt a consequence of the fact that syphilomata affect either the surface of the hemispheres, or, if they form in the substance, it is at vascular parts such as the central ganglia.

I must again trust to my cases to illustrate the effect producible by syphilitic tumors; but I must notice more particularly a form of affection to which Dr. Hughlings Jackson has specially called attention as frequent in connection with syphilis, and in some sort

characteristic of syphilitic cerebral disease. The prominent feature in these cases is unilateral convulsion, unattended for the most part with loss of consciousness. The convulsive movements may vary in degree from a mere twitch or slight stiffening to the most violent agitation, and may be accompanied or preceded by sensations of various kinds. Usually the starting-point is constant in a given case, and very frequently this will be the thumb and index finger. Beginning here, the agitation may in one attack be confined to the upper extremity, and there may be no loss of consciousness; at another time it will invade the entire lateral half of the body, traveling up the arm to the shoulder and face, and down the leg, becoming bilateral where the nerve nuclei of the two sides are associated; or sometimes the arrival of the agitation and accompanying sensation at the head or face may be the signal for general convulsions and loss of consciousness. If the convulsive movements begin in the foot or face a similar course may be followed, and after the unilateral convulsions the limbs which have been affected may be left paralyzed for a time from exhaustion of the nerve force. When the hemispasm, as it has been called, is on the right side, and especially when the starting-point is the face or tongue, temporary loss of speech is very common.

Sooner or later, and very often early, optic neuritis usually comes on. Dr. Jackson has shown that this hemispasm is due to disease in the convolutions of the opposite hemisphere, almost always near the fissure of Sylvius, and has shown that particular convolutions are involved according as the convulsions begin in the hand, foot, or face; thus extending our knowledge of the localization of function in the cortex of the brain, and giving occasion for the experiments of Dr. Ferrier, which have deservedly excited universal attention. Dr. Jackson has usually found the disease in these cases to be a syphilitic tumor, but the symptoms are of course determined by the situation and not by the nature of the growth. The frequency, however, of syphiloma in these cases will, in cases of doubtful character, be a reason for entertaining the hypothesis of syphilis as a provisional diagnosis.

CASE.

Motor paralysis of right limbs only; loss of sensation in entire right half of body and face; slight mental disturbance; fits.

SYPHILITIC THROMBOSIS OF CEREBRAL ARTERIES.

Varied and important as are the effects of syphilitic disease in the membranes and substance of the brain, not less so are the re-

sults of syphilitic disease of the cerebral arteries. Here, again, as in every part of the subject, I have to acknowledge my indebtedness to Dr. Hughlings Jackson, who has led the way in this, as in many other investigations, and has repeatedly insisted on the importance of recognizing the effects of syphilitic disease in the arteries.

The arteries of the brain in syphilis are frequently attacked by inflammation, usually beginning in the outer coat. This may lead to thrombosis which cuts off the supply of blood, and produces the results now known to follow this event. The effects are, first, an accumulation and stagnation of blood in the capillaries in the area of distribution of the vessel blocked, and unless collateral circulation can be established there will be subsequent softening. The symptoms will depend upon the part fed by the artery which is obstructed. I am disposed to think they are more varied than those produced by embolism, since a fragment carried from the valves of the heart or from the aorta, appears to find its way into certain vessels (notable the left Sylvian artery) in preference to others, while syphilitic thrombosis may occur anywhere. In identical situations the effects of thrombosis and embolism would of course be identical.

Syphilitic thrombosis must be of very frequent occurrence, judging from my own experience and from the number of cases collected by Zambaco, Gross, and Lancereaux, but set down as examples of inflammatory softening.

CASES.

Left hemiplegia affecting chiefly face and upper extremity ; convulsive attack followed by mania ; peculiar loss of intelligent use of hands without loss of power ; syphilitic disease of arteries ; thrombosis of right middle cerebral ; softening of convolutions near end of fissure of Sylvius, &c.

Right hemiplegia with tonic contraction of paralyzed limbs, relaxing during sleep ; access sudden, and attended with temporary aphasia.

Hemiplegia, right ; sudden, with loss of consciousness and impairment of sensation.

Syphilitic thrombosis.—Mary W—, aged thirty, single, a domestic servant, was not aware that she was the subject of syphilis. She had had no cutaneous eruption, but five years before she came under observation she had suffered from perforating ulcer of the soft palate, which had left a large aperture. One morning, at

4 o'clock, while in bed, she suddenly lost the use of the left limbs, and twelve months later she was still suffering from marked hemiplegia. A little improvement was obtained by means of iodide of potassium, cod-liver oil, and iron, but the condition was evidently one of permanent damage and almost certainly of syphilitic thrombosis of a cerebral artery.

Syphilitic thrombosis (?)—Eliza W——, aged forty-three, married, and had borne sixteen children, of whom ten were alive and well, came under observation on the 26th of April, 1867. She was aware she had suffered from syphilis, and had scars on her forearms from rupia thirteen years before. Two months previously, when apparently in good health, she suddenly fell down insensible while preparing dinner, and so lay for an hour and a half. When she came to herself, she found she had lost the use of both legs and of the right arm. She also saw double, and everything seemed to go to the top of the room. She had recovered power in the limbs, but suffered much pain over the right brow, and there was slight paralysis of the left side of the face. From this and from the peculiarities of the attack, the mischief was apparently at the upper part of the pons. The nature of the lesion must be acknowledged to be uncertain; it might have been hæmorrhage or thrombosis. Small doses of iodide of potassium had not much effect, and she did not remain under treatment sufficiently long for large amounts to be reached.

We can not present in full all the cases reported as exemplifying the various statements, but have given the points in each case in italics. These will suffice to indicate their general character. In conclusion, the author makes the following remarks upon the diagnosis, prognosis, and treatment.

The considerations involved in the diagnosis of syphilitic disease of the nervous system, are too numerous and elaborate to be resumed in the time which remains at my disposal. We have, on the one hand, to guard against the conclusion that whatever happens in a person who has suffered from syphilis is necessarily due to this disease; and, on the other, to avoid being misled by the absence of an acknowledged syphilitic history or of traceable syphilitic antecedents. The period of life at which the nervous affection comes on is a great guide. In old persons, except in

very obvious cases, we should arrive at a diagnosis of syphilis only after exclusion of other and more common causes of disease of the nerve-centers. In young adults, syphilis would suggest itself early, unless there were heart disease or disease of the kidneys. Our chief aid in the diagnosis, in addition to evidences of syphilitic disease in other parts, which must be carefully looked for, will be the antecedent or associated symptoms which we have learnt by experience to connect with syphilis—headache, with nocturnal exacerbations, sleeplessness, and irritability. The gradual and irregular mode of access, except in the case of thrombosis, is, again, suggestive of syphilitic disease; and convulsions are very common.

In the prognosis we have always to bear in mind the liability to relapse. Occasionally we see recoveries which are apparently complete and permanent; frequently, I think, when the symptoms have been only epileptiform attacks, and the associated nervous disturbances enumerated in speaking of syphilitic epilepsy; sometimes when there has been evidence of graver mischief; but in a large proportion of the cases, the patients will enjoy immunity from similar or more serious symptoms only on condition of perseverance in the employment of the remedies. The chief considerations which bear on the prognosis are the duration, nature, and seat of the lesion. As to duration, the longer the mischief has existed, the more likely are its effects to be permanent; for although syphilitic exudations and growths are singularly amenable to the influence of remedies, if they are allowed to remain for any length of time, they destroy the structures in which they are lodged; this is more particularly important in the spinal cord, in which a very limited lesion will involve the entire segment, and cut off the part below from the cerebrum. It is, however, remarkable how much relief is often afforded, even after a prolonged train of disturbances, by removal of the cause, especially when the symptoms point to an affection of the cerebral hemispheres. As to the nature of the lesion, supposing it to have been determined that it is of syphilitic origin, the most important point is to distinguish between the effect of syphilitic disease in the membranes or nerve substance, and of thrombosis from syphilitic inflammation in the arteries. As Dr. Hughlings Jackson has often insisted, the result of the blocking up of an artery will be independent of the nature of the obstruction. If a collateral supply of blood does not find its way to the part, softening is inevitable; and supposing that treatment could affect the original disease, as when a cerebral

artery is included in a gumma, it would probably come too late to obviate the effects. Usually, as has been stated, thrombosis gives rise to sudden attacks without much pain. Syphilitic epilepsy, so called, yields to treatment. We have here, in Dr. Jackson's language, only a discharging lesion, not a destructive one. In paralysis, on the other hand, there is frequently destruction, but recovery may be expected if we can exclude thrombosis and softening, and if the duration has not been too prolonged. The tumors which give rise to unilateral convulsion appear to be particularly liable to be attended with optic neuritis, and may wear out the patient's strength; but tumors at any part can sometimes be brought to a state of quiescence, and the effect of disseminated lesions are more serious than those produced by a single growth.

As to the *seat* of the lesion, I will only further add that growths from the dura mater are apparently less amenable to treatment than affections of the other membranes, or of the nervous substance; probably because they are less vascular, and therefore less easily reached and less freely acted upon by the remedies.

The treatment is simple. The one remedy is iodide of potassium; or, this failing, mercury. I usually begin with doses of six grains, and always combine with it ammonia—the carbonate or aromatic spirit. Having, by one or two days' experience, ascertained that there is no special intolerance of the iodide, it may be rapidly pushed to doses of twelve, eighteen, twenty-four, thirty, or thirty-six grains, three times a day; occasionally, even larger doses are necessary, and I have given a drachm every four hours. That large doses are often absolutely required, and that they succeed when moderate doses fail, I am convinced by abundant experience; and if iodism is induced, which is very rarely the case in tertiary syphilis, it is almost always before large doses are reached. Large doses are better borne when taken after meals. Of course iodide of potassium is more quickly taken up into the blood from an empty stomach; but it is also quickly out of the blood and in the urine, and when a continuous action on the system is needed, which is what we require in dealing with the effects of tertiary syphilis, the indication is best met by giving so diffusible a remedy as the iodide of potassium after food. If the iodide of potassium fails after a full and free trial, a resort to mercury is always desirable, and the more recent the syphilis the earlier. When we are passing from the use of one to the other drug, either a certain interval should be allowed to elapse, or the mercury, if given by the mouth, should be in one of its most soluble and

active forms—the bichloride or biniodide. More than once I have seen sudden and profuse salivation when this precaution has been neglected, no doubt from the mercury being converted into biniodide within the system. Sometimes I have employed mercurial inunction at the same time with internal administration of iodide of potassium; and have frequently given biniodide of mercury with iodide of potassium, either in the same mixture or in the form of pill at night. One word as to the *modus operandi* of iodide of potassium. This was the subject of a beautiful explanation by Dr. Odling in his Gulstonian Lectures before the College of Physicians, hypothetical at that time, but demonstrated by experiment since. The active agent is the iodine, as shown by the fact that other salts of potassium have not the same effect, while other combinations of iodine, such as iodide of ammonium or sodium, have. The iodine is permitted to exercise its influence on the seat of disease in virtue of the comparatively slight affinity by which it is held in union with the base, this being so feeble, that in the presence of certain forms of living protoplasm in active change the salt is decomposed and the iodine set free to exercise its solvent action on the organic matter; whether this is direct or indirect through the well-known oxidizing effects of free iodine is not so certain.

IS HABITUAL DRUNKENNESS A DISEASE?

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Whatever diversity of views may be entertained touching the nature of drunkenness, all are agreed in regarding it as a self-inflicted wrong to the person, eventuating in a wrong to society. It is not strange, therefore, to find it condemned by the law-making power of every age as a *malum prohibitum* as well as a *malum in se*, intensifying crime and justifying the withdrawal from its subjects of the right of controlling their property. Under these views acquiesced in by the Common Law of England and the United States, it is a strange inconsistency in Legislation, for the State of New York to maintain a State Asylum for one hundred inebriates, while conniving through its excise system at the manufacture of thousands of drunkards, and affixing penalties of various kinds to their conduct. But sentiment is always a disturber of the logistics of legislation, and the moment men undertake to become wiser than their Creator, and to make the basis of legal and moral obligation simply physical, they lose themselves in mazes of self-contradiction and inextricable confusion.

Nothing is more painful in the history of our criminal jurisprudence, nor a greater hindrance to its equitable administration, than the growing tendency to apologize for every sin according to its magnitude. Minor offenses alone are stigmatized with opprobrium, while great ones are casuistically shifted from the regions of human responsibility to the realm of fore-

ordination, and the blame inferentially laid upon the Creator. Struggling virtue may starve unaided and unprayed for in garrets; honest industry may die of a broken heart, wearily waiting for a lifetime in the ante-chambers of success; the toiling artizan may lose his daily bread from an unlucky speculation of his rich but still grasping employer, and the poor scholar hawk his unappreciated essays from door to door in search of sustenance and a sphere of employment, but in none of these suffering mortals will public sentiment interest itself sufficiently to make them objects of special attention. Crumbs may indeed be occasionally thrown to them by some wayfaring Samaritan, but the voice of public prayer will not be heard, and the efforts of the public conscience will not be invoked by press or pulpit in their behalf. The reason is obvious. In a sensational age like our own, nothing that is common-place is interesting. But let a man commit an astounding crime, let him blaze with blasphemy against religion, let him murder with all the fiendish accessories of mutilation and arson, let him throw around his atrocious acts the lurid glare of an irrepressible fatalism, and he becomes at once interesting to a certain order of sentimental minds. In their estimation he is an instrument, divested of his self-hood, and simply performing the bidding of another. What other? Let us see.

Of late a certain order of minds, exploring the more recondite fields of science, have plumed themselves upon the discovery that all moral liberty in relation to human conduct was absurd and illogical. They assert that inflexible laws not only govern matter in its lower chemical affiliations, but even compel the mind to act in settled and irrefragable lines of conduct. They quote Quetelet, to show that a certain number of suicides occur with definite regularity in any given

year, and in any given locality; that a similar number of misdirected letters are annually put into the post-office, thus testifying to a similar numerical recurrence of obliviousness on the part of their writers; and that finally, taking the whole world through, whether in the department of mind or of matter, necessity, and not moral freedom, is the law both of genesis and of action.

This order of things, this new pangenesiis, is both convenient, as well as delectable. It virtually purges man from all sinfulness, and puts the blame upon the Creator for having made him; whereas, in fact, God did not make him as he is, but as he should be, did he but exercise his powers in recovering himself from the downward tendencies that he has both inherited and is in turn transmitting. This is the pivot of the argument, for if God is to be made responsible for the misdeeds of men, because their parent, then Adam, in begetting Cain, was more blameworthy for the death of Abel than was the murderer himself, although God in branding Cain, and not Adam, does not appear to have agreed with these views of our advanced philosophy.

The great center round which now revolves the dogma of human helplessness, fatalism, and irresponsibility, is that of disease. Every vice, every crime is disease, nothing short. And if the crime be so great that human endurance is provoked into an attempt to punish it, the criminal is at once surrounded by an army of sentimental protectors, whose prayers are not so much for his reform, as for scientific light whereby they may explain and extenuate his offense to the world. When insanity can not be invoked, it is something else, but always disease, or that can't-help-it justification which is supposed to admit of no answer.

One of the most striking illustrations of this sentimental humanitarianism, which "like vaulting ambition o'erleaps itself," and thus contradicts those very principles of human liberty which it should, in consistency, sustain, is the present attempt to extenuate habitual drunkenness as a special disease, removing its subjects from the sphere of moral accountability. This is the postulate to the argument which thus framed, converts a vice into a disease, and renders its author and its victim, (both combined in the same person,) irresponsible for his own suffering. Precisely who is to blame for this condition, is not told us. Some say ancestry, some say alcohol, some say nature, but all come back to disease as the *primum mobile*. But what do these coefficients mean when taken separately?

FIRST AS TO ANCESTRY.

Every human being has a dual nature, spirit and body. Which part does he inherit from his parents, and which from God? From his parents he receives his physical type, with certain tendencies to repeat whatever they have practiced to excess. And arises a marvelous vindication of God's attributes in that, since there can be no excess in virtue, so parents, however morally good, beget only negatively good offspring, while sin being a violation of virtue, and every step in it but an excess of declination, the morally unhealthy, often beget offspring lower than themselves in either physical or mental attributes, and sometimes in both, as is seen in the descendants of drunkards and habitual malefactors. In fact, there is evidence all about us of a law of moral gravitation through which a soul not ascending Godwards, is as surely descending morally, for it is here that not to advance is to decline, as Milton has so well expressed it:—

“That in our proper motion we ascend;
Up to our native seat: descent and fall
To us is adverse.”

But what does a drunkard transmit to his offspring? Not drunkenness surely? Drunkenness is a result, a climax to successive stages of previous preparation, the first of which has been voluntarily produced. We will admit, for argument's sake, that a child inheriting a tendency to drink, may have liquor given it of whose effects it was previously ignorant, and thus be made drunk, or desirous for more, or that any one may through ignorance be once poisoned in this way. But does this prove any moral or even physical obligation upon an individual to drink habitually to excess? Is any man *obliged* to do what his parents may have done before him, simply because he feels like doing it? Is there any physical coercion about it, when the individual is left to himself? Who tempts him? Himself. Who goes premeditatedly in quest of the liquor, coolly awaits its preparation, and drains with lingering caress of lip and tongue the juggling draught? Were a sane man to commit homicide with such a show of method and deliberation, would any one call it aught but murder, the highest crime known to the law? And why need a man be a drunkard simply because his father was one. Is drunkenness in the order of nature? A man inheriting consumption has the order of nature working against, as well as for him, and he may not be able to escape his doom, because the material forces of the universe overpower his weakness, just as the same breath of air which fans the fire into a living blaze, may, if too rudely applied, extinguish the spark that is to kindle it. Men must breathe, must digest, and must sleep, in order to live; but has any chemist yet found alcohol in the atmosphere which a man must breathe

constantly, or die; has he found it in the water which a man must drink, or perish from thirst; has he found it in the sunshine which glorifies nature, and gives genetic force to living germs? Has he found it in any of the vital stimuli, without which no living bodies, whatever their rank in nature, can long exist? No. And, admitting even the strongest possible appetite for drink as an inherited tendency, did any one at any time, or in any place ever know of a man becoming a drunkard by spontaneous evolution, and without first drinking sedulously and voluntarily?

The greater rapidity with which alcohol acts upon one man as contra-distinguished from another, does not alter in the least the moral significance of habitual drunkenness. What we insist upon is that no man is by either physical or moral constitution obliged to become a drunkard, and the plea of a drunken ancestor raised by way of demurrer to our right to adjudge him a criminal, is about as weak as would be that of a murderer who should ask an acquittal, on the ground that his father had been a wholesale murderer before him, and he had inherited a tendency to imitate him. Any man may so love the taste, or the effects of liquor, as to prefer to drink rather than to combat the initial impulse towards it, and the same may be said of every other animal instinct. In doing this he only exercises the prerogative of a free moral agent, and because he chooses to do a particular form of wrong, no more proves him to be laboring under disease, than because he chooses to do some other and equally reprehensible act. He has his choice and he makes it, and in order to show that he is not a free moral agent, and to that extent therefore is coerced to drink, one must have evidence that habitual drunkenness, or the love of drink is a natural disease, and not a vice.

THE THEORY OF DISEASE.

Pathologists will hardly agree that a mere craving for alcohol is, in itself, a disease. All organic activity ultimately rests upon the application of certain stimuli to living parts, and organs habituated to stimuli of a particular grade, whether natural or artificial, will, in time, fail to respond to those of a lower degree. Nor are the organs always discriminating in their demands. A pebble in the mouth will provoke the flow of as much saliva as the smell of a sumptuous repast. And in proportion as taste becomes blunted, will the palate tolerate inferior substitutes among stimuli. Hence the demand for fresh supplies of alcohol by the drunkard, not because his system naturally craves it, but because he can not obtain the response and gratification of exaggerated sensation, or the bliss of benumbing narcotism from any other substance in so pleasant a way. Yet if he can not get it, he will put up with something inferior; and if he can get no stimulants at all, he will instead of losing his health, as is the invariable rule with those who are deprived of vital stimuli, enjoy better health. So here is a disease which, the worse it rages in a man, the more surely he will get well of it, if he pays no attention to its symptoms.

Now, if habitual drunkenness be a disease it must be amenable to some, at least, of the laws governing disease. No one at the outset pretends that it exists in any animal but man, and no one pretends that it exists where alcohol is unknown, or unconsumed in some form. Hence it fails to show a basis either in the anatomy or physiology of animal life, what then does it rest upon? It is not due to an atmospheric cause—to germs of infection carried *in fomites*—it is not capable of being produced by cold, starvation, filth, overcrowding and bad air, lewdness, or any *physical* cause whatsoever sav-

ing alone alcohol. Strange disease, forsooth, that has no cause in nature, neither in sun, air, earth, ocean, or waters under the earth. Not even an assumed baleful agency distilled by malignant stars can furnish any physical reason for its existence. Yet if it belongs to the sphere of vitality as acting upon matter, it should move in obedience to some of its laws. Does it? One of the chief and omnipresent results of vitality, whether in health or in disease is, that it expresses conditions above the control of the human will. Its external manifestations may indeed be tampered with, interrupted, and temporarily suspended, but its action is nevertheless continuous, self-consistent, and self-sustaining. Hence no man can will himself into or out of a disease, until vitality has first prepared the proper conditions for its production or elimination. In families inheriting phthisis or insanity, or cancer, *all* the offsprings do not necessarily succumb to the same disease as their parents. Why not, if this physical fate be so inexorable?

Yet we are here presented with an alleged disease called confirmed drunkenness, and described as consuming a man's vitals, and converting him into a mass of organic degeneration; a disease compared with which cancer or malignant erysipelas are merely benign processes of elimination, and which stranger than all, that same confirmed drunkard can, and did produce at will—which he can extend or shorten in duration—which he can accentuate in degree from simple hilarity to swinish stupidity, or unconsciousness, and lastly, and with a superhuman power approaching that of the Deity, can absolutely prevent from *ever* attacking him, if he pleases. Was there ever such another disease known, or over which man was permitted to be omnipotent both to create, and uncreate?

Surely, if in the presence of these allegations of disease we should venture to ask for proofs to sustain them, we can not justly be charged with a design to chop logic, or to split hairs. Diseases have symptoms, else how do we know of their existence? Hence we ask, what are the symptoms, the leading symptoms, of this mysterious malady of the human body which may be produced, regulated, dismissed, or absolutely prevented, at the *will* of its victims? Where is its seat? No one seems to know. Passing strange indeed is this bodily disease that has no local habitation or home, but leads a vagrant life about this tabernacle of flesh. One gentleman indeed located it in the brain, meaning thereby the entire contents of the cranial cavity. But this is rather an indefinite territory and with many mansions in it for excluding the ganglia of special sense, there are seven independent forms of brain substance within the skull, in any one of which this alleged disease may reside. Will the advocates of this theory please to make a choice? We are told by them that the one point of specific differentiation between it and other human distempers is the thirst for alcoholic beverages. This is the pivot of the whole problem, the alpha and omega of this physical riddle. There is no disease recognizable until the appetite for strong drink is formed, and there is none left after the appetite is subdued. The disease, therefore, is a fleeting condition not incorporated in the system, but superimposed by the successive installments of alcohol consumed, and passing from a state of nonentity to one of actuality, at the will of the victim. Doubtless every drunkard suffers from the consequences of excessive organic stimulation, and is to that extent diseased; but the diseases developed in him are objective and visible, hence may be localized and distinguished, and what is particularly

noteworthy, none of them are under the control of his will, except the alleged originator of them all, the appetite for drink.

Again, none of these diseases, or more properly anatomical changes in the structure of organs are the exclusive property of drunkards. Thickening or thinning of the walls of the stomach, chronic diseases of the liver, or brain, or kidney are found in those who have never been drunkards, nor in turn, does the presence of any one or more of these diseases in a person tend necessarily to produce a craving for alcohol, and to precipitate him into habits of drunkenness. In other words those diseases do not inevitably destroy man's moral liberty, and although more common in the drunkard than in others, they do not *per se* produce the evil habit in him because the habit ante-dates the disease, and if so, can not be its result.

Again as soon as the individual has enough of what he *prefers*, and of what gratifies him, and loathes it from satiety, the appetite and the disease vanish together, so that in producing the disease by cultivating it, he extinguishes it at the same time by a surfeit, and it never overpowers him again until he re-awaken it by drink. Does this look as if the germs of this metaphysical disease pre-existed in his body, or does it not look the rather as if he planted them there purposely? If they pre-exist, then they should be able to grow and develop themselves independently of any act or will of his own, which is never so. The problem of self-abasement, or self-redemption is entirely within his control, provided he exercises a continuous determination of his will not to partake. The key to the riddle of this alleged disease lies in a man's own will, and without this will-effort, no physician can cure or even relieve him; with this will-effort, no physician is needed to cure him, for the distemper is always within his own control.

One of the most brilliant and distinguished advocates of the disease-theory surrenders the whole case by an admission of an irretrievably damaging character, when he says that, "The question of the successful treatment of inebriety hinges on the simple fact of *re-formation*, re-formation of the mind and will, as well as of the corporeal man generally." True. These are precisely our views, but they are views which entirely exclude the idea of disease, for what organic disease would reasoning with a man, or re-forming his will, rid him of?

It might enable him to break a habit, but not to re-make organs compromised by indulgence in it; for structural changes involve disease as their cause, and are not controllable by the will, as habit is. Again, there is no disease of any organ of the human body whose natural termination is in confirmed drunkenness. If any one laboring under any disease whatsoever, and which belongs to any age, sex, or organ, becomes a confirmed drunkard, it is because he has made himself so. Knowing it to be a fact that mankind suffer everywhere from organic diseases, why is it that such diseases are never associated with even symptoms of drunkenness except where men first introduce alcohol in excess into their systems? The reason is obvious. Inebriety is not a disease, but a self-provoked temporary perversion of our natural functions, induced for purposes of sinful gratification.

THE SCRIPTURE VIEW.

But whatever men may say, on this or that side of any question of ethics or physical law; however, much they may dispute and divide upon this bearing, or that conclusion of the problem, dare any one doubt that the Author of all being and of Law had forethought in

His omniscience, every possible condition of our humanity? If habitual drunkenness be a disease, who first discovered it? If sin be a disease, who first discovered and gave it that name? Was it God, or was it man? Let us be just. God did not create sin—neither did He create disease, since both are perversions of our original state. But, inasmuch as disease is essentially independent of the human will, and the quality of *wrong intention* can not inhere in matter, God does not punish disease, as disease. Only so far as it is associated with sensuality, does he rebuke the self-provoker of it. He knows better than we the condemnation of physical suffering and mortality under which we labor, nor has He ever turned His face, or withheld the soothing influences of His grace from the sick in body or in spirit who sincerely besought His aid. All through the Scriptures are allusions to His sympathy with the physical sufferings of mankind—now in times of plague—now in times of famine, and nowhere has He shut the gates of mercy against natural and unavoidable disease. Surely Omniscience can not err. He knows best the conditions of matter who was himself the author of it, and what does He say, speaking by the mouths of His inspired apostles. Listen to that well-trained, dialectic Paul, who of all men knew best the weight and worth of words, singly or in context, whose legal training made him the equal of the keenest sophist, and whose inspiration armed him with the irresistible spear of an Ithuriel; hear him as he thunders into the ears of the dissolute Corinthians, this divine message: “Be not deceived; neither fornicators, nor idolaters, nor adulterers, nor effeminate, nor abusers of themselves with mankind, nor thieves, nor covetous, nor *drunkards*, nor revilers, nor extortioners shall inherit the kingdom of God.” Does that look as though

he considered drunkenness a disease? If physical disease had been included among the divine prohibitions which worked a forfeiture of salvation could he by any possibility have overlooked them, and would he not have said, "neither consumptives, idiots, maniacs, dyspeptics, nor blind, deaf, dumb, or cripples shall inherit the kingdom of God?" Yet Paul was not an extremist. He was not a teetotaler. He had no prejudices against wine as a medical agent, for he advises Timothy to use it. But note the critical lawyer and careful guide, "Keep thyself pure. Drink no longer water, but use a *little* wine, for thy *stomach's* sake, and thine *often infirmities*." The reason goes with the advice, preceded by the injunction to keep pure. Pure from what? The context furnishes the key to the answer, pure from drunkenness. And why is drunkenness a vice so reprobated by the Diet? Because of all material conditions it is that one which most emphatically obscures, defaces and degrades the only divine elements within us, the mind and soul.

Will men in the face of these Divine teachings still continue to call habitual drunkenness disease? Will they nurse and treat on pillows of down its subjects, and foster their pride, while at the same time paralyzing their self-reliance, by telling them that they are the victims of disease, inherited or otherwise, and so are not morally responsible for the continuance of the malady? Is there anything more demoralizing to a man than to convince him that he has lost his moral liberty, and is the slave of a blind physical necessity? Let him be taught that his redemption is in his own hands, and the noblest victory that which he accomplishes by his *will*. To say that, his will is subjugated, is not true in the passive sense. He alone subjugates it actively, and if he will but avoid *doing* (that is drinking,) his will-

power to abstain will both continue and strengthen with time. It is a mistake to do too much for weak, sinful men, even by way of charity, for charity with all her tenderness, "rejoiceth not in iniquity," and the truest charity is that which teaches men to win their own independence, by convincing them that they are never morally enslaved except by themselves.

ON THE GERM-THEORY OF DISEASE.

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I.—THE LIFE QUESTION.

No recent theory has given a greater impetus to scientific investigation than that of evolution. We can not avoid its influence, upon the elucidation of histological processes, of the morphological changes in diseased structures, formation and decomposition, and upon the theories of disease, since cellular-pathology, and the germ-theory, have directed attention more and more to the minute forms and phenomena of life. Everything living is subjected to a continual change of its constituents produced by constantly operating causes. The single cell itself represents life, and where heterogeneous cells are bound in a state of interaction, they may support each other, or the process of life of the one may destroy the life of the other. Assimilation and excretion are the two active preservers of life, and as one or the other predominates the phenomena of growth or of decay will occur. Growth or decay! "Where are the beginnings?" "What are the ultimate laws of life?" And again arises the question:

transformation or origination, *ex ovo aut ex archē?* No question at the present time has been the subject of more experimental research; none has been more earnestly debated, and with more discordant results.

Even the evolutionists are divided in their opinions, some (Bastian, Häckel, *et. al.*,) considering the law of natural selection as not being confined to living matter alone, and regarding life as "one of the natural results of the growing complexity of our primal nebula." Darwin himself concludes his great work "On the Origin of Species," with the following words:

It is interesting to contemplate a tangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us. These laws taken in the largest sense, being growth with reproduction; inheritance which is almost implied by reproduction; variability from the indirect and direct action of conditions of life, and from use and disuse; a ratio of increase so high as to lead to a struggle for life, and as a consequence to natural selection, entailing divergence of character and the extinction of less improved forms. Thus, from the war of Nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator in a few forms or into one; and that while this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

These are words which need no interpretation. Huxley, although, supposing it were given to him "to look beyond the abyss of geologically-recorded time," he would expect to be "a witness to the evolution of living protoplasm from non-living matter," adopts it "as an article of scientific faith, true through all

space and through all time, that life proceeds from life, and from nothing but life." While Sir William Thompson in his most interesting hypothesis of the origin of the germs of life on our globe, resorts to "the moss-grown fragments from the ruins of another world."

It will not be my endeavor in the following pages, to sum up all that has been done to elucidate the question of the law of life; but to give a somewhat critical review of the value of the experiments, of the observations and of the philosophical considerations brought forward to establish a theory which harmonizes with our conception of natural processes, and our faculty of recognizing the invariable laws of nature.

The following statements will define the leading principles which should guide us.

1. In observing nature we are accustomed to accept all that our senses perceive, as physical facts. Facts are exclusive, although no one can exist without some relation to others; but all our sensual perceptions are limited.

2. Experiments are employed in studying natural processes for the purpose of confirming facts, but in relation to every fact observed, the one established by experiment may at all times appear altered by the conditions under which the experiment is made.

3. A theory can never be regarded as a true conception of nature, which is not the expression of facts observed and confirmed, or which commits us to suppositions not realizable in thought.

The question of the law of life has been entertained by naturalists in every age. The *archigenesis, generatio æquivoca veterum*, according to the former crude observations of nature, has been generally adopted by the older naturalists, even in regard to the production of

higher organized animals, as insects, fishes, reptiles, etc., and still occupies a somewhat important rank among the popular errors of the present time. After the more scientific investigations of Spallanzani and others, after the improvements made in the optical parts of the microscope and its application to science, after the study of the development and the life of the entophytes and entozoa, and of the processes of fermentation and putrefaction, after the discovery of germs of life throughout the atmosphere of our globe, of growing life even in clouds,—as has been established by numerous examinations of hailstones,—which, impregnated with organic substances, wander from the tropic regions to the pole and back, the biogenesis or the “*omne vivum ex ovo*” theory became more and more triumphant. In the last twenty years, however, the diversity of opinions has remarkably increased. The defining power of our microscopes has been more than doubled during that time; the air, the earth, the ocean, even to the enormous depth of 24,000 feet, have been thoroughly examined, and new orders of organic beings of the lowest kinds have been detected. Experiments, brought to the highest point of accuracy, manifest the most careful considerations of all circumstances which might possibly complicate the result; and yet all the results are discordant. It is true the specialists incline more than ever before, to assume the archigenetic theory. “Evolution,” it is asserted, “implies continuity and uniformity. It teaches us to look upon events of all kinds as the products of continuously operating causes, it recognizes no sudden breaks or causeless stoppages in the sequence of natural phenomena.” (*Bastian.*) Though the existence of a new order of beings, intermediate between animals and plants, of organisms, paradoxical as it sounds, without organs, the Protista of Hæckel,

the first representatives of terrestrial life, from which all other forms are developed, and which are claimed to represent the leading scale from unorganized matter to organic life, has been established, still this evidence has not dispersed scientific skepticism, and natural philosophy clings even now to another conception of organized matter and of what is called "life."

All experiments which have been employed to decide the question, whether living matter is produced without the influence of organic life, turn upon the observation of the changes that a liquid, which contains nothing but dissolved chemical compounds adapted to the nourishment of some of the so-called lower forms of life, may undergo. This is heated and boiled in a flask for the purpose of extinguishing all germinal matter, and the flask is closed hermetically while in ebullition. If gaseous mixtures are allowed to enter the liquid, they are likewise heated, or pass through porous media as a freshly burned porcelain plate, or through a filter of cotton impregnated with resinous substances, or through tubes filled with powdered glass moistened with sulphuric acid, etc. And yet in the one case an actively moving bacterium-termo, or a monad, makes its appearance; while in the other no changes, no alteration of the liquid is observable. Referring to my own experiments, first executed some ten years ago, and repeated at intervals several times since, I have never found any other reason for such discordant results, than that in the one case all imminent germs were destroyed and new ones excluded, while in the other case this was not accomplished. The apparatus employed by me in these experiments, consisted of three wide-mouth flasks holding about four ounces of water. Flask 1 and 2, and 2 and 3, were connected by india rubber tubes, three inches in length attached to stoppers of the same

material, (especially made for this purpose.) In flask 2 a thermometer was inserted, and from the stopper of flask 1, another small tube branched off. All tubes could be closed by very strong clamp wires. After the flasks were charged with the liquid, in every case all clamps were opened, and flask 3, containing air was heated until the thermometer in 2 showed about a temperature of 150° Fahr. This was done to deprive the apparatus of some of the air, and thus prevent so high a pressure during the following operations.

EXPERIMENT 1. Flask 1 was charged with three ounces of turnip infusion, flask 2 with one and one-half ounces of Pasteur's ammonio-tartrate solution. Clamp 1, at the branch-tube, and clamp 3, between flask 2 and 3, were closed, and flask 1 exposed to heat until one and one-half ounces of its water were distilled over into flask 2, raising the temperature in 2 to about 190° Fahr. After this, clamp 2 was closed, clamp 3 opened, and one and one-half ounces of the contents of 2 distilled into 3, raising the temperature as high as 212° , and immediately afterwards the liquid was redistilled into 2, clamp 3 closed, clamp 2 opened and the same quantity distilled back into 1. All clamps were closed. After two days bacteria were found in flask 1, after four days flask 2 was infected. The experiment was repeated with the same result.

EXPERIMENT 2. Clamp 1 and 2 closed. One ounce of the liquid in flask 2 was distilled over into 3 and back. The clamps were closed. After four days living bacteria were found in flask 2. The distillation was then twice repeated: After fourteen days no signs of bacteria could be discovered.

EXPERIMENT 3. Flask 1 charged with three ounces of Pasteur's solution, flask 2 with one and one-half ounces of distilled water, one and one-half ounces dis-

tilled over from 1 into 2, from 2 into 3 and back. No bacteria existed either in 1 or in 2 after fourteen days.

EXPERIMENT 4. Flask 1 charged with three ounces of the infusion, flask 2 with one and one-half ounces of distilled water. Distillation as above from 1 into 2 into 3 and back to 1, all clamps were then closed; after eight days bacteria were found in flask 1, but after fourteen days none were observed in flask 2.

EXPERIMENT 5. To two ounces of the infusion in flask 1, two ounces of water were added, flask 2 charged with Pasteur's solution. Clamp 1 and 2 closed. One ounce of 2 distilled into 3 and back, and the operation twice repeated. After eight days there were no bacteria in flask 2. Then clamp 1 was opened, the infusion boiled down to two ounces, and again the clamp closed in ebullition. Clamps 2 and 3 were kept open to allow the air to pass freely into 1. All clamps were closed. This experiment was repeated six times. In two cases bacteria were found after eight days as well in flask 1 as in flask 2. In the other four cases, after twenty-one days, no traces of living beings could be detected.

These experiments show very plainly,

1. The germinal matter of the bacterium is extinguished by the continual action of heat.
2. It is not extinguished under all circumstances at 212° Fahr.

3. The germinal matter exhibits a greater resistance to the action of heat in Pasteur's solution than in water, and a greater in the infusion than in Pasteur's liquid.

Whatever the cause of this protection may be it is at present impossible to say. It is true no one has yet seen the germs or germinal matter of the bacterium, but what we know of the minuteness of the germs of some monads, which are barely visible with the 1.50 object-

ive of Powell and Leland, and the size of which must be less than the 1-300,000 of an inch, justifies the supposition of their existence. Is it their minuteness which protects them for a time against the action of heat? This is not quite impossible, as will be explained in another place. But we may refer, also, to some other phenomena concerning the relation of heat to the molecular state of bodies in general.

Considering heat as a mode of motion, of molecular motion, it is well known that an increase of this motion, transferred to any unorganized or organized matter, will, at a certain point, alter its entire molecular constitution, producing a physical or chemical displacement of its molecules. But the quantity or the intensity of motion required for such an effect depends entirely upon the bodies or substances engaged, and upon certain circumstances which may influence the action.

Albumen coagulates at 145° ; dry albumen may be heated as high as 212° without losing its solubility. Caseine is not coagulable, and globuline, (hämato-crystalline,) a compound perhaps of the highest order ($C_{600} H_{960} N_{134} F_{e1} S_3 O_{179}$), resists a displacement of its molecules by heat, up to 176° . Some of the offsprings of albumen exhibit very different qualities. Kollagen is transformed into glutine by boiling water, while elastine shows a remarkable resistance against its action. Steam and water at 212° are commonly said to destroy all organic beings and germs, yet undoubtedly not by the action of heat alone, but by the action of heat and water or steam. Many seeds may be heated dry, others in oil up to the same degree for a certain time without losing their germinative power, and even mammalia will exist, without injury, in rooms filled with dry air, of a temperature as high as 300° Fahr. Suppose now the germinal matter of an animalcule of the

lowest order, of a bacterium, a monad, to consist of an elastine-like and other proteinous compounds, the molecules of which are not displaced at once by the action of water or steam at 212° , there is no reason to conclude that all its germinative power would be destroyed after five, ten or fifteen minutes' ebullition. Now we must always keep in mind that we know still very little of the chemical constitution of living matter represented in the so-called lower forms of life, and the series of the proteinous compounds recognized by our chemists has not yet been closed.

In regard to the means adopted for the purpose of excluding all new germinal matter from the liquids, we meet with more difficulties, the less we alter the natural conditions of the experiment. Where the tubes or flasks were hermetically closed while in ebullition, by the aid of a soldering pipe, I have never observed any traces of bacterium, and seldom when sealing wax was used; but wax, sealing wax, etc., may contain germs. The porous porcelain plate employed by Huizinga will in no event answer the purpose. In his experiments where bacteria were not found, may not the vapor of mercury, by which the tubes were closed, have had some influence? The filtering of air or forcing the same to pass through sulphuric acid, gives at all times very discordant results, as the smallest bubble of air may contain germs which enter the liquid, and if only a few are safely introduced, we know they will be sufficient for the production of millions and millions of offspring. In the experiments of Davaine, the living particles which produce septicæmia, though introduced into the blood of an animal in a quantity only corresponding to the trillionth of a drop, by an infinite multiplication of their numbers, caused death.

It is therefore my conclusion that a single experiment, which establishes the possibility of preventing the occurrence of the forms of life, in liquids adapted to sustain them, by the employment of such simple means as those above mentioned, is convincing, or, in the words of Huxley: "There must be some error about these experiments, because they are performed on an enormous scale every day with quite contrary results. Meats, fruits, vegetables, the very materials of the most fermentable and putrescible infusions are preserved to the extent, I suppose I may say, of thousands of tons every year, by a method which is a mere application of Spallanzani's experiment." There is another reason why I can not give any credit to the objections made by Hæckel and others, that we have to deal in our experiments with quite unnatural conditions. It is a fact well known to all experimenters, that substances exposed to heat for a time sufficient to destroy all imminent germs of life, are nevertheless, quite fit for a pabulum for organic life, and that the minutest quantity of living matter will in it carry on its life to indefinite reproduction.

I proceed to review the observations and the conclusions drawn therefrom by the naturalists, in regard to the laws of life.

In France, (Pouchet, Pelletier,) and in Germany, (Schaafhausen, Büchner,) authors have expressed the results of their observations in words which would settle the whole question at once, if their comprehension of observed facts was not open to the gravest objections. They pretend to have seen with their own eyes, by the aid of high magnifying powers, organic beings separated from liquids, containing dissolved organic compounds, just in the same manner as a crystal is separated from a solution. The distinguished Hæckel, himself, seems

inclined to subscribe to such a belief when he speaks of a moner "as a structureless, uniform little mass of proteinous matter which represents, chemically, only one single albuminous compound." Nevertheless this moner is shown to be composed of a slimy matrix, in which numerous small particles are imbedded, and it may be called, at the same time, a protamœba. It nourishes itself by assimilation, reproduces itself by fission into a group of young; and slowly diffusive movements make manifest its contractility. It is developed by spontaneity. Nuclei and nucleoli appear in the uniform structureless little mass of albuminous matter, and soon it enters into the little more respectable society of the amœboids, which very likely already exhibit sexual differentiations, like some of the smallest monads, since I have observed them at times in a state of greater compactness and density, and in rapid motion, one revolving around the other, in a state of activity which undoubtedly stands in some connection with procreation, although I have not yet been able to observe another kind of multiplication as that by fission. Among the English naturalists, Bastian declares himself very decidedly in favor of "the ultimate similarity between crystalline and living matter," that is between the process of crystallization and the supposed spontaneous production of organic forms. May we be allowed first to explain the process of crystallization of the simplest kind, when a liquid throws out crystals of a compound which was dissolved in it.

A solution represents a mixture of heterogeneous molecules. The homogeneous molecules of the liquid, easily displaceable according to their state of aggregation or latent heat, are placed in such a manner between the homogeneous molecules of another compound of different latent heat, or molecular motion, that these

become as displaceable² as the molecules of the liquid itself. In consequence of an increase or a decrease of molecular motion, the liquid, it is apparent, will exhibit altered capabilities in regard to its power of transferring molecular motion to the other heterogeneous molecules. Besides this, some certain peculiarities of the latter, may at all times influence the interaction, and establish so great a variety of relations between such heterogeneous substances, as may confound the simplicity of the fact. Nevertheless, all phenomena of dissolution are liable simply to molecular motion, and stand in direct proportion to that kind of molecular motion, which we call heat, and upon which the state of aggregation of all bodies is based. During solution, therefore, as well as during fusion, a certain quantity of heat always becomes latent, and hence it is that the solution of a substance usually produces a diminution of temperature, that is, heat is absorbed from all bodies which are in contact with the substances engaged. In certain cases, however, instead of the temperature being lowered, it actually rises, but this depends upon the fact that two simultaneous and contrary phenomena are produced. The first is the passage from the solid to the liquid condition, which always lowers the temperature. The second is the chemical combination of the body dissolved with the liquid, and which, as in the case of all chemical combinations, produces an increase of temperature. Consequently, as the one or the other of these effects predominates, or as they are equal, molecular motion in the form of heat will be expelled, or absorbed, or remain constant. Concerning the interaction between liquids and solids, the following laws regulate the phenomenon. 1. At a fixed temperature only a certain quantity of the solid is dissolved. 2. The solubility increases and diminishes

between certain limits, as the temperature or the molecular motion of the liquid rises or sinks.

Now it will be easily understood that in cases where the quantity of a dissolving liquid diminishes or its temperature sinks, a corresponding portion of the dissolved substance will be thrown out, according to a physical affinity, perhaps, in combination with a certain quantity of the dissolving agent or without it.

Concerning the form or the figure under which the solid appears, we know, regarding the law of isomorphism and dimorphism, that it depends for the most part upon the number, and therefore upon the arrangement of the atoms of which the compound molecule consists. Molecules of different atomical constitution must therefore themselves differ in form and figure, and although not visible to the eye, exhibit *de facto*, the principal form under which larger aggregations are perceived.

Now, as to the microscopical observations, in regard to the process of separation of a solid from a liquid, it is apparent, that the first moment in which the eye will find itself engaged by rays of light reflected from a solid aggregation within the uniform solution, will depend upon, first, the angle under which we observe; second, upon the quantity of light (the number of undulations) reflected; third, upon the sensibility of the retina of the observer himself.

Supposing, now, in reference to first and third, the most sensitive retina, and that we operate with the highest powers obtainable, would there not be in virtue of the second statement, at all times, a boundary beyond which no perception is possible? This may be disputed, but without reason. There is a certain law in nature which seems altogether unknown or too much neglected, that is, as far as we are able to conceive, that

all interaction in nature is related to quantity. This law is of universal validity, and no interaction and no conversion of motion can take place, except as regulated by quantity of matter. As little as one single longitudinal oscillation of an air molecule represents a sonorous wave and will be perceived by the ear, so little will one transverse undulation of an atom irritate the nervous elements of the retina of our eye. The motion of one or two single molecules can not be transformed into mechanical energy, and yet, molecular motion (heat,) and mechanical energy are mutually convertible in numerical proportions expressed by the quantity of matter in motion.

It is for this reason that all sensual irritability is in proportion to the quantity of matter in motion, which is to be transformed into nervous energy. When, therefore, in a mixture of two heterogeneous molecules, the refracting power of both, separately comes into action, and they are separately perceived by our eye, it is absolutely necessary for both substances to be present in an aggregation of such dimensions, that the number or the quantity of reflected or refracted undulations required for a substantial phenomenon, and for the transformation into nervous energy, are furnished. From this time only, the body will be distinguished by the eye, nevertheless we must suppose that an aggregation of some dimension may have existed long before, for we are not able to observe anything aside from an alteration of form produced by the process of growth. In the theory of the constitution of matter, we distinguish between atom, aggregate of atoms or molecule, and aggregate of molecules or body; in regard to the activity of matter, between motion of bodies, motion of molecules, and motion of atoms. Sound, heat, electricity, are phenomena of molecular motion; light and

chemical energy of atomic motion. Modes of motion are mutually convertible; the motion however of a single molecule can not be converted into mass motion, the motion of a single atom can not be converted in molecular motion, and inversely a motion of a molecule can not be converted into that of one atom; motion includes a multitude of actions. The analysis of a chemical process leads to similar conceptions. Chemistry teaches us, that for instance in water (88,9, O, 11,1 H, by weight,) one atom hydrogen is combined with one atom oxygen, to one molecule H O. Does this molecule represent water, steam, or ice, or the form under which H O seems to be bound in a crystal, or an organic being? Certainly not, because only a multitude of such molecules can enter into a substantial existence and into actual relations to other bodies. No body is divisible by itself or by another body, but by its molecules, and no molecule is divisible by another, but by an atom and no atom is divisible by another atom. So the indivisibility of the atom is only a quality of relative validity. But as all the properties of the chemical elements are changeable, when they pass into combinations, there remains one unaltered under all circumstances, that is their weight, and only in definite unchangeable proportions of weight do they combine. Heterogeneous atoms must, therefore, represent either equal spaces filled with unequal quantities of matter, or unequal spaces filled with equal. In both cases, however, all interaction which may take place between them is an interaction of quantities, so that the general law of quantity has even here its foundation.

It may be permitted us at this point, to take again into consideration those remarkable facts above mentioned, concerning the action of heat upon the germinal matter of the lower forms of life. The supposition that their

minuteness might protect them, at least for a time, seems no longer quite so unreasonable and vague, when we consider that the quantity of matter in action will doubtless have some influence upon the effect produced. The active quantity of heat transmitted to a body, must diminish with the size of the body itself, as the points of aggression diminish. The diffusion of heat is at any event a slow process and organic bodies belong to the list of bad conductors. According to Prof. Tait, "In a single drop of water there are a thousand quadrillions of ultimate particles. Each particle in a drop of water, is to the entire drop as the size of a walnut is to the earth," and it will hardly be granted that we recognize in an organic germ, nothing more than a compound molecule, but this does not in the least affect the law which regulates all interaction in nature.

Since there is no possibility of witnessing an act of origination in nature, we must allude to the theoretical views laid down, to assist our comprehension.

Analogy has, at all times, played an important role in the interpretation of natural processes, but with very dissimilar results. Häckel, in regard to crystallization and the formation of a Protista, has carried these analogies to their utmost limit. He acknowledges two formative principles in nature: the inner plastic energy, depending upon the number and the arrangement of the atoms, corresponding to inheritance in living forms, and the action of external forces, as temperature, atmospheric pressure, etc., by which a continual modification of the forms is produced, (the law of accommodation;) but there is one distinction, he continues, as the crystal grows by aggregation, so the organic being grows by intussusception. This is owing to their different densities, or the different state of aggregation, by which they are characterized. According to this theory, an organic

being would be assumed to consist, like a crystal, of molecules, of course in a peculiar, or *fourth* state of aggregation. This peculiarity threatens to overthrow the laws upon which the other three states of aggregation depend, if we do not acknowledge another energy as acting in nature, which, although it paralyzes the physical forces, appears not to be convertible into the same.

We have not yet the slightest evidence to justify the assumption, that an organic being consists of molecules; and that even the simplest moner, by the action of any of the physical forces should be divisible into its molecules, no one has asserted. Why, however, if it really consists of only one chemical compound, should this not be done, since other albuminous or proteinous compounds may undergo these changes without an alteration of their chemical nature? And, how can the transformation of a dissolved albuminous compound into a moner, by the action of the same physical forces, be assumed? There must be something wrong about those analogies, and a moner must represent more than Häckel seems inclined to admit.

Since every living thing is subjected to a continual change of its constituents, such transformations occur under the direct influence of life everywhere. Compounds in a molecular state are decomposed, and others in the same state excreted; but what changes they have undergone during these processes and what constitution of matter they have represented, of these we have attained no knowledge, by means of our chemical and physical examinations. No doubt chemical forces are active, and the formation of a chemical compound can not be considered as the only effect of chemical affinity. We have gained some familiarity with these processes, since the discovery and the separation of

those peculiar compounds, which are recognized as the direct causes of fermentation, putrefaction and digestion, which, under certain circumstances in the minutest quantity may continue chemical interaction almost *ad infinitum*. It is true they are created by the action of life, and our chemists have not yet been successful in producing one of them without the aid of life. The number of these substances must be almost as infinite as the organic forms themselves. In some instances they support life by transforming compounds into a state for assimilation, while in other cases they act as the most poisonous and life destroying agents, and the so-called vegetable alkaloids and the animal poisons, stand in a close relationship to them.

But although this illustrates how life preserves itself, and by what means it may be developed, it throws very little light upon its ultimate causes and sources. The form remains unexplained.

Analyzing a crystal we find a geometrical body, in which the sides, the enclosed angles, the axis, stand in certain definite relation to each other. The body is mathematically constructed, without referring to its material composition, and the most heterogeneous compounds appear in the same figure. An equal quantity of one element may be replaced by another one, according to the law of isomorphism, without changing the crystal's figure, and numerous other combinations are recognized, as dimorph and trimorph. Upon the arrangement of the atoms, and upon the motion of the molecules against each other depends the invariability of the constructed form, and no geologically-recorded time has changed, no law of evolution developed the form. In a similar manner motion may be conceived. A mathematical curve is constructed in thought; it may be represented by a point or a celestial body in

motion, and the laws which regulate the undulations of a liquid, a solid, a gas, may be conceived of by substituting for each of these forms of matter, some imaginary substance. A chemical compound is virtually the same whether it appears under the form of a liquid, a solid, or a gas. This is not so in the perception of an organic being, which represents a perfect oneness, an insoluble unity of action, composition and form. Therefore one form is not equal to another; and the one is not equal to itself, from one moment to the other, although both are similar. We are not able, in thought, to separate the action from the substance which acts, or the substance from the figure. There is no geometrical body before us which matter constructs by its motion; if it were so, we must construct in thought, an organic form, by substituting an imaginary medium in motion.

In a moner, a cell with or without a membrane, the form is not separable from its essential nature, and no definition can be given which includes all or excludes one. It is therefore not comprehensible in thought how an organic form has been originated. It has not come into existence by an agglomeration of molecules, because no molecule is actually formed during the continual change of its constituents. This fact of change excludes the possibility of formation, and should we draw the parallel, so would the whole being, as each cell itself represents one molecule.

These considerations are the same, very probably, by which Hæckel was governed, when he conceded that an organic being grows by intussusception. Intussusception demands an interaction of the *ultimate* particles of matter, of the atoms themselves. The distinction between a crystal and an organic being is therefore an essential one, and since no intussusception is thinkable

without a being that intussuscepts, so nothing can have been originated by such an act.

There is one thing in any event undisputed: that life proceeds from life. I can see no reason why this law, even if it is of universal validity, should interfere with the general law of evolution. "Evolution implies uniformity and continuity," *heterogeneity* without any doubt. Herbert Spencer gives us the following definition: "It is a change from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity, through continuous differentiations and integrations." How can this be comprehended? The continually operating causes which produce the heterogeneity, must either be conceived as inherent in nature, or as external supernatural forces. In the latter case Spencer's definition would just about cover a definition of Creation, while in the former, instead of homogeneity, the *pre-existence* of *heterogeneity* is supposed. Continually operating causes exclude entirely the supposition of a beginning, of an act of origination, and interaction itself demands heterogeneity, through all time and space. All natural processes are therefore only comprehensible as facts of transformation, and the law of evolution expresses the nature of these transformations, as acts of relation in the midst of an infinite heterogeneity, as infinite as the universe itself. So the universal validity of the law of life, that life proceeds from life and from nothing but life, stands by no means in opposition to evolution, and if life is regarded as eternal, as replanted upon our earth "by the moss-grown fragments, from the ruins of another world," so will a hypothesis like this seem not more unscientific than any other. Why may we ask are only a few of the elements, which compose our globe, supporters and formers of life, while all the others are ex-

posed to the same acting forces? There is something aboriginal and immediate in life, which no history, no philosophy explains. And when it is said that "we are like colonists, like cultivators, upon this world," these words are the expression of a natural sense, perhaps of a truth, which seems approved in science by the conception of that first, that greatest of all the laws of life, which elucidates the others and points toward the disproportion, so evidently pronounced between life and inanimate matter—*the struggle for existence*.

PSYCHOLOGICAL RETROSPECT.

ENGLISH PSYCHOLOGICAL LITERATURE.

Journal of Mental Science, Vol. XVIII.—January, 1873.

PART I.—*Original Articles*:—The Madmen of the Greek Theatre, (No. 3,) J. R. Gasquet, M. B. The Religious Sentiment in Epileptics: James C. Howden, M. D. Lunacy Legislation in New Zealand: W. Lauder Lindsay, M. D. Tumors of the Brain in the Sane and the Insane: R. Boyd, M. D. On Larceny, as committed by Patients in the earlier stages of General Paralysis: J. Wilkie Burman, M. D. The Shower Bath in Insanity: John A. Campbell, M. D.

Dr. Howden has called attention to a peculiarity of the epileptic state, in the development of the religious sentiment, which has been little noticed by writers. Many instances are at hand, in the lives of leaders and founders of sects, and in those religious fanatics, who figured in the epidemics of the middle ages, notably that of the dancing mania. He reports several well marked cases occurring under his own observation, and introduces those of Anna Lee, the founder of the Shakers, of Emanuel Swedenborg, and of Mahomet, in all of whose lives there are evidences of abnormal nervous manifestations, of a cataleptic or epileptic character.

The causes of this undue development he finds in the nature of the disease, which, from the consciousness of infirmity and helplessness, begets a craving for sympathy, which in turn, finds a deep response in the highest development of hope—of religion. This is a very plausible theory, but will not explain the existence of the religious sentiment in a large class of epileptics, those who are unconscious of the presence of disease, and hence do not feel helpless, or look to others for aid or sympathy. However, it is like the “echo sign” in the writings of epileptics, a peculiarity of the disease, and worthy of careful record as a part of its history.

“Tumors of the Brain in the Sane and Insane.” Dr. Boyd states, that in 1,039 *post-mortem* examinations, in the St. Marylebone Infirmary, there occurred 22 cases of tumors of the brain: 1 was insane, 2 were in a state of fatuity, and in 19 no mental derangement was observed. At the Somerset County Lunatic Asylum, in 875 *post-mortem* examinations, there were 14 cases of tumor of the brain. The article is continued through two numbers of the JOURNAL, and contains a history of all the cases. The largest tumor found was the size of a hen’s egg, and the smallest, that of a pea. The symptoms observed were too diverse and varied, to admit of classification.

Dr. Campbell’s paper is founded upon an experience with 118 patients, who have been subjected to treatment by the shower bath. The duration of the bath was for males, from a few seconds at the first applications, to a minute; for females, the time did not extend beyond a half-minute. They were given on getting out of bed, and were continued from a few days to two years; the average time of treatment being from one to four months. The mental states of the cases were

various, and included those of the recognized forms of insanity. Of 118 cases which were under treatment, 48 recovered, 20 improved in both bodily and mental condition, 18 improved in health; in 25 there were no effects, and in 6 ill-effects were observed.

In two young lads pneumonia occurred while they were getting the baths; they both recovered. The conclusions our author feels warranted in drawing, are that the shower bath is useful in puerperal mania, at the dull stage; in hysterical mania in young girls; in a state somewhat similar to the above, seen in boys and young men, dependent on sexual causes; and in cases in which persistent excitement exists without organic cause. There is nothing sufficiently conclusive in the statements here made to promote confidence in, or lead to the adoption of this method of treatment. In American Asylums, it has long since been generally discarded. In most of the institutions, the arrangements for giving shower baths have been removed, and they are now very rarely introduced in the new asylums.

PART I.—April, 1873.—*Original Articles*.:—The local distribution of insanity, and its varieties, in England and Wales: T. S. Clouston, M. D. Notes on Epilepsy and its Pathological Consequences: J. Crichton Browne, M. D. The Madmen of the Greek Theater, (No. 4,) J. R. Gasquet, M. B. Tumors of the Brain in the Sane and the Insane: R. Boyd, M. D. Uniformity in Public Asylum Reports: J. A. Campbell, M. D. The Galvanic Current applied in the treatment of Insanity: A. H. Newth, M. D. The Asylums of Paris in 1872: Henry Sutherland, M. D.

The article of Dr. Clouston deals with only one of the main divisions of the subject stated in the title, and is to be continued. Regarding "the local distribution of insanity in relation to the decennial increase of the population between 1861 and 1871." The rate of increase in the population for the period, was 13 per

cent. It is a noticeable fact, that in counties where the increase of population has been largest, the percentage of lunacy is the smallest, as in a list of counties with an increase of 17 per cent. the lunacy ratio is but 1.5, while in another series of counties, with an increase of but 9 per cent. the lunacy ratio is 2.8 per cent. the general average for the whole of England and Wales being 2-2. Another interesting point to be investigated is, whether the increase in lunacy in any way corresponds with the decennial increase of the population in the various counties of England. In the year 1861, there were 35,709 pauper lunatics, known to the Commissioners in Lunacy, and in 1871, 50,637, which gives an apparent increase of 41 per cent. for the period, but no one really believes that lunacy has increased at such a rate. From the best available data that can be obtained, the yearly increase for the past three years has been 3-6, for all England. The apparent increase in the metropolitan counties is well known to have greatly resulted from the opening of new asylums for imbeciles at Caterham and Leavesden. "The local distribution of insanity in relation to pauperism." Analysis here shows the very closest approximation between the amount of pauper lunacy and pauperism in the counties generally.

"The local distribution of insanity in regard to wealth." The author considers the rate of wages as the best test of wealth in the community, as wages is the poor man's wealth. In all the counties where wages are good the rate of lunacy is low, where the wages are lowest the lunacy rate is highest. As might naturally have been expected, the country shows itself more healthy than the town as regards the production of insanity, other things being equal. "So far these investigations clearly show that with certain exceptions where the population of a county rapidly increases, its lunatics are few, and

do not increase so fast in proportion to the people, the reverse of this being generally true also; that lunacy goes hand in hand with pauperism all over the country, and that the presence of uniformly diffused wealth among a people certainly seems to lower the rate of production of mental disease."

Dr. Browne is not a believer in the statements which often gain credence, that epilepsy increases intellectual activity and power, or in short, confers genius. Rather than accept this as the truth regarding noted epileptics, as Napoleon, Mahomet, Molière and others, he asks the pertinent question, how much greater might they not have been without the epileptic limitation. He further asserts, it would not, perhaps, be going too far to say that it invariably exerts a prejudicial influence on the minds of those who are affected by it, and that the statements which have been made to the contrary have arisen out of imperfect observation. "The experience of those who have seen most of epilepsy, will, I believe, confirm the assertion that no good thing can come out of it, and that it entails a blight and a blemish upon the mind of every one who is affected by it." In reference to pathology, the Doctor speaks from the examinations in 60 *post-mortem* cases.

It is in the different steps of the attacks that the explanation of the pathological consequences must be sought. As it is difficult to condense the statements on the pathological appearances, we quote at some length :

In the first step in which that heightened excitability of the med. ulla oblongata, in which the disorder essentially consists, is awakened, we have spasm of the vessels of the brain, with temporary deprivation of blood, and a general commotion of the nervous elements very inimical to their healthy activity. In the second step,

in which clonic convolutions occur, we have venous congestion and pressure on the brain, due to spasm of the muscles of the neck, and fixture of the muscles of respiration, and we may have the breaking up of the structure of the brain by a multitude of minute, or a few large clots. In the third step, in which coma remains, we have poisoning of the brain by imperfectly aerated blood.

Now, in these morbid conditions of the brain corresponding with the steps or stages of the epileptic attack, are contained the origins of all the pathological alterations in the cerebral hemispheres found in connection with epilepsy.

Foville, the most distinguished cerebral anatomist of his day, who drew his experience from the Asylum at Charenton, described a general hardening of the medullary matter extending throughout the whole encephalon, extraordinary dilatation of the blood vessels, and a rosy color of the gray matter of the convolutions as being always found in the epileptic brains which he examined. Bouchet Cazauvieilh, Morgagni, and Parchappe have given similar descriptions, and in recording the results of our researches in this asylum I have been compelled to use language almost identical with that of Foville. Putting aside these appearances in the brain which are unquestionably attributable to the mode of death or to intercurrent conditions, we arrive at this conclusion: that hypertrophy and induration are the characteristic brain changes in epileptic insanity. These will not be found in every case; in very recent, and in very far advanced cases they need not be looked for; but still in a large majority of cases they will be unmistakably present. In very recent cases they are not found, because they have not been fully established. In very far advanced cases they are not found, at least not in a marked degree, because ulterior changes springing out of them have obliterated them. In very recent cases the serious failure of brain power, which is sometimes seen, is to be traced not to the hypertrophy and induration of the organ, to which the same kind of failure, a little further on in the disease, is ascribable, but to a molecular perturbation analogous to what happens in concussion. The brain is suddenly thrown out of gear by the spasm in the contractile fibres of the vessels, and has not time to recover itself before it is again deranged by a recurrence of the spasm. That this is so is indicated by the fact that deep dementia has been observed to follow a series of attacks of *petit mal*, in which no clonic convulsions nor cerebral congestions occurred, but merely momentary unconscious-

ness with pallor of the face. Persistent mental weakness, however, does not follow *petit mal*. I have never seen a case of genuine continuous epileptic dementia which was not dependent upon the *haut mal* and the changes which the *haut mal* brings about, chiefly through pressure upon the cerebral tissue and cerebral hyperæmia. It is a popular observation that pressure and hyperæmia lead to hypertrophy. The excitation of pressure induces too copious a flow of blood, and increased growth and bulk ensue, and this is particularly apt to happen when the pressure is interrupted in character and only occurs from time to time. The first effect of the interrupted pressure which is applied to the brain in epilepsy appears to be a genuine hypertrophy and augmentation in volume. But hypertrophy is generally partial, and even when it affects whole organs it is manifested principally in certain textures and so the hypertrophy of the brain in epilepsy is manifested chiefly in the connective tissue. A kind of fibroid substitution slowly but surely goes on in those parts which are periodically subjected to congestion and induration, as well as an augmentation in volume ensue. The hair becomes coarse and the skin of the head and face hard and thick, and it is a noteworthy and well known fact that wounds of the head and face heal in epileptics by the first intention; that is to say, without any inflammatory process a formation of granulation tissue takes place, and this splits up into fibrils and forms adhesions. Then the skull becomes thickened also, and when it is removed the brain expands as if relieved from compression, and feels unusually dense and hard when touched. The specific gravity both of its gray and white matter is greater than in any other class of lunatics—and the absolute weight of the brain is also decidedly higher. The convolutions are flattened, and the sulci are mere lines, and do not gape nor contain fluid. The membranes show no signs of inflammatory disturbance. When the brain is cut into it is tough and firm, the gray matter being dark and the medullary white and glistening. The ventricles are of small size. Around the pons Varolii and medulla oblongata, and especially on the floor of the fourth ventricle, redness and vascular dilatation are visible, and the vessels when measured are found considerably distended, owing both to increase in their sectional area and thickening of their walls. These are the usual appearances in the brains of persons who have labored under epileptic insanity, but they are subject, of course, to numerous variations. Thus a spotted, blotchy, marbled appearance of the medullary substance may be seen when an attack, or group of

attacks, has immediately preceded death, and some atrophy or wasting, with opacity of the arachnoid, may be remarked when the disease has been long protracted and has passed into epileptic stupor. This latter condition of the brain is referable to impaired nutrition, owing to the thickening of the vessels, or to gradual contraction of the hypertrophied fibrous tissue, and puckering of the brain, if it may so be termed.

Death during an epileptic fit, or immediately after it, is an exceedingly rare occurrence, and is due to rupture of vessels within the cranium. The reason of this is found in the hypertrophied condition of the vessels, a provision of nature to prevent the occurrence of rupture, and also to the fact that atheroma is so rarely found in cases of epilepsy. Dr. Browne has never seen an instance of it. He calls attention to the numerous extravasations of blood in minute points under the skin. These are more frequent after an attack of status epilepticus. It is to their presence that the singular lividity of the countenance, in these cases, is due. It is reasonable to suppose that these miliary hæmorrhages occur in the brains of epileptics, and these would explain many of the mental symptoms observed after a severe fit. They would account for the protracted coma, and for the bewilderment and headache which accompanies it, and the slow clearing off of these as contraction and absorption advance. These minute extravasations have been seen in the brain. Larger hæmorrhages are probably common causes of paralysis, occurring in the course of epilepsy. Death from exhaustion, after epileptic mania, is not a frequent accident, and the Doctor has seen but two cases of it. He believes it only occurs when the strength has been reduced by some other disorders of health.

The status epilepticus is the most common cause of death among the epileptics of the West Riding Asylum. The brains of those thus dying present, in the most

marked manner, the hypertrophy and induration referred to as characteristic of the disease. The gorged sinuses, discolored tissues, and numerous puncta, prove that congestion preceded death. The whole aspect of the brain and of other organs of the body of a patient who has died during the status, call to mind the appearances found in cases of asphyxia. It is impossible to point out any distinctive differences in the *post-mortem* appearances, between patients who have died of suffocation, and those who have died in the status. The prone decubitus of chronic epileptics is a noticeable feature of the disease: of fifty epileptics in the Asylum, forty lie habitually half turned on their faces, and ten are apt to turn over during a fit. In general paralytics the decubitus is dorsal. The tendency of epilepsy, when life is not cut short by the accidents of the disease, is to a condition of mental fatuity, called epileptic stupor. The brains of those dying in this condition, "present traces of former induration, the substance being tough and leathery, but the hypertrophy has given place to a certain degree of atrophy. The fibroid tissue formerly swollen and hypertrophied, has undergone contraction. The proper nervous elements, so long subjected to compression, have wasted; the thickened and distended vessels have failed to minister fully to nutrition, and so even softening may have set in. A special temperament or diathesis may help to the incursion of the epileptic stupor and atrophy, as also may repeated attacks of the status epilepticus or apoplectic clots exercising pressure. The atrophy is evidenced by some opacity of the arachnoid, diminished size of the gyri, and enlargement of the sulci, which also contained some compensatory serous fluid, a quantity of which generally occupies the enlarged ventricles. The atrophy of epilepsy is moderate in

degree." The whole article is one of great interest, and is enriched by the recital of cases intended to illustrate the different points.

Dr. Newth reports 15 cases of insanity treated by galvanism: of these 9 were of cases of melancholia, 3 of mania, 1 of dementia, 1 of locomotor ataxy, and 1 of progressive paralysis. Several of the cases of melancholia improved under the treatment. In three of them the improvement was marked, and was directly attributable by the author, to the use of electricity. The conclusion drawn from this record is, that when there is a want of tone in the nervous system, the continuous current has a marked beneficial effect, and that if after a few applications there is an increase of force, and slightly of frequency in the pulse, there is a great chance of the treatment being successful.

PART I.—July, 1873.—*Original Articles*:—Address on Idiocy: John Charles Bucknill, M. D., F. R. S. The Use of Digitalis in Maniacal Excitement: W. Julius Mickle, M. D. Consciousness and Unconscious Cerebration: N. S. Davies, B. D. The Madness of the Greek Theater, (No. 5,) J. R. Gasquet, M. B. The Morbid Psychology of Criminals: David Nicolson, M. B. On Testamentary Capacity: Sir James Hannen. "Eugene Aram." A Psychological Study: J. Balfour Browne, Esq.

The address, by Dr. Bucknill, was delivered at a meeting of the Governors of the Birmingham and Midland Counties Asylum for Idiots. He briefly traces the rise and progress of this charity from its incipency in 1800 to the present time. The first idiot who attracted the attention of scientific men, was the savage man of the Aveyron, as he was called, who had lived all his life in the forest without contact with his kind. Pinel, then of the Bicêtre, pronounced him an idiot, but Itard, of the Asylum for the Deaf and Dumb, com-

batted this view, and for five years educated him as a savage. At the expiration of this time he gave up the task in disgust. His labor though so fruitless in this instance was not barren of results, as the principles of training and treatment he adopted have served as the basis of the physiological education of idiots. His example was followed, and his method was developed and perfected by Séguin, the first of all idiot teachers, whose book is the standard work upon the subject. He taught in the school organized in the Bicêtre by Voisin and Leuret, physicians to the Asylum in 1840. In 1839 an Asylum was established for the Crétin idiots, near Interlachen, Switzerland, for which subscriptions were sought in England. This aroused the attention of the English mind to the subject, and in 1846 the first Idiot Asylum in England, was established by Miss White, of Bath.

The doctor pays a high compliment to a countryman of ours, as follows: "The most trustworthy authority we possess on the causes of idiocy, is contained in a report of Dr. S. G. Howe, the celebrated teacher of Laura Bridgman, and other commissioners appointed by the Governor of Massachusetts, in 1848, to ascertain the cases of idiocy in that state." He mentions by their dates the establishment of the other asylums of England, speaks highly of the success that has attended their efforts, and makes a personal appeal in favor of the institution at Birmingham.

The "Use of Digitalis in Maniacal Excitement," by Dr. Mickle, is an admirable paper, and throws much light upon the therapeutic qualities of this drug. The preparation employed was the Tincture of the B. P., and the average dose 30 minims, three times a day. It was given in cases of chronic mania with paroxysms of

excitement. The average length of time, in which benefit followed its use, was 26 days. It was often given for a season, and then discontinued, to be renewed upon the occurrence of a paroxysm. In other cases of chronic mania treated by digitalis, the excitement was more diffused and uniform, either continuous or sub-continuous. The table presented gives the record of 41 patients, who took digitalis on 66 occasions. They were decidedly benefited in 77 per cent. of all the trials. The greatest advantage was derived in the paroxysmal cases. In some instances, the later course of the affection was milder, as if the nervous power was recuperated during the period of quietude enforced by the drug. The effect upon the pulse was studied, and the conclusion reached, that when digitalis checked the paroxysms, it reduced the high pulse associated with them. In some cases where digitalis was not calmative it caused sickness: anorexia, nausea, and vomiting, were occasionally produced. Where emesis occurred, the excitement was reduced, though at times only temporarily. Large or increasing doses were carefully avoided, and comparatively small doses were found to exert a calmative and tonic influence, on both cerebral and cardiac agitation. Any marked alteration of cardiac rhythm or sounds, supervening while digitalis was being taken, was felt to justify immediate cessation of its use. They were, however, of rare occurrence.

In the article on "Morbid Psychology of Criminals," by D. Nicolson, M. B., there are some statements of interest in regard to the presence of neuroses among criminals, and in opposition to the conclusions of Mr. Bruce Thompson, of Perth Prison. Mr. Thompson says, that the number of physical diseases are less than the psychical, and that the diseases and causes of death

among prisoners are chiefly of the nervous system. Mr. Nicolson says, that diseases of the brain and nervous system, cause somewhat over 9 per cent. of the deaths occurring in the convict prisons of England, and that they rank second among the causes of mortality among prisoners. Simple nervousness is by no means prominent among criminals. One seldom, if ever, comes across an epileptic in the advanced and utterly helpless stage. Epilepsy is often so well feigned, that it is only by accident that the imposture is detected. In prisoners it is almost always accompanied by strong convulsions, and *petit mal* does not show itself.

PART I.—October, 1873.—*Original Articles*:—The Presidents address before the Medico-Psychological Association 1873: T. Harrington Tuke, M. D., F. R. C. P. The Morisonian Lectures on Insanity 1873: David Skae, M. D. The Treatment of Insanity by Electricity: George Beard, M. D. Five Cases of Idiocy with *post-mortem* examinations: W. W. Ireland, M. D. The Function of Brain and Muscle considered with relation to Epilepsy: J. Thompson Dickson, M. A., M. D. Antiquarian Scraps Relating to Insanity: T. W. McDowall, M. D. The Morbid Psychology of Criminals: David Nicolson, M. B.

Dr. Tuke in his address calls the attention of the medico-psychological society to the following topics.

1. Is medicine, in its narrow sense, of paramount importance in the treatment of mental disease?
2. The increase of insanity in England?
3. Can the present system of treating insanity be improved?

To the first question, the Doctor gives an unqualified affirmative reply, and thinks it of the utmost importance that the association should, upon this subject pronounce no uncertain opinion as, "A cloud of Scepticism has appeared in the horizon of Modern Science, has

darkened Medicine, and would, if it could, obscure still higher truths." He asserts that a majority of the members of the society show in their practical work and earnest writing, that they are true to their faith as physicians, and can trust the resources of their art with confident hope in their still further developments. He then refers in detail to the therapeutical labor done, in the record of the experience of the different members in the use of various remedies.

In treating of the increase of insanity, Dr. Tuke feels obliged, by the statistics upon the subject, to dissent from the opinion of Dr. Robertson, that the increase is apparent rather than real. By a table appended he shows there is an annual increase of 2000 insane persons in England. This number has raised the per centage in ten years from 2.09 to 2.58, per thousand of the population:

"The hypothesis has been advanced, that the progress of civilization, and the spread of education among the masses, have with a greater activity of brain produced a corresponding increase of nervous exhaustion and disease. This is a melancholy theory; it would unsettle our belief in the onward progress of mankind, it would shake the very foundation of our faith. Such a theory receives no support from statistics; if intellectual training and mental exertion were causes of insanity, then it should be more frequent in those ranks in which during the last half-century, the mental powers have been so much more cultivated and exercised. The statistics of lunacy show that the increase of insanity has been amongst the poorer classes only. The commissioners in their eighth table state the per centage of poor lunatics to the total number of the poor to be 3.66 per thousand, in 1859, but the large proportion of 5.98 per thousand, in 1873, or nearly double in fifteen years."

Dr. Tuke does not suggest improvements in detail in the treatment of insanity, but on comparison of the cures effected in various institutions, finds a great

difference in the success, the cures varying from 55, to but 28 per cent. per hundred as calculated upon the admissions. He would have such improved methods employed as would raise the average of recoveries from the lower to the higher rate mentioned. He says, let there be no Gheel colonies, no national change in a system that at its best is so successful. There is noted a diminution of the number of insane in the upper classes which is attributed to the improved knowledge of the disease by the medical profession, hence, arises an earlier recognition of the malady, and a quicker application of remedies.

"The Morisonian lectures for 1873," were largely prepared by Dr. Skae, who held the appointment of lecturer. The disease from which he suffered, and which finally caused his death, prevented their completion and delivery. At his request, and by consent of the patron and President of the college, Dr. T. S. Clouston, formerly an assistant of Dr. Skae, was selected to take his place. The subject of this lecture, is the classification of insanity in accordance with the forms of disease, or of its etiology, rather than the mental symptoms. The arguments in favor of such a classification are presented, and the objections stated and refuted. It is not within our province to comment upon this subject at length, nor need we give any extended notice of the plan. It is substantially the same that has for some years been before the profession, and is already in their hands. The lecture is one of great interest, and the subject is ably handled.

In the paper on "The Function of Brain and Muscle," Mr. Dickson combats the views expressed by Dr. Hughlings Jackson, in his paper, "On the Anatomical, Physiological and Pathological Investigation of Epileptics."

In the first place Dr. Jackson starts with the statement that the "Normal function of nerve tissue is to store up and expend force," and he says, "It is true that this is the function of *all* organic matter, but it is *par excellence* the function of nerve tissue. There are *but two* kinds of alteration of function from disease. Saying nothing of degrees of each, there is on the one hand loss of function, on the other over-function (not better function.) In the former, nerve tissue ceases to store up, and therefore to expend force. In the latter, more nerve force is stirred up than in health, and more is therefore expended; the nerve tissue is "highly unstable."

But we may ask, what is the proof that the normal function of nerve tissue is "to store up and to expend force?" By what means does it store it up? how is it expended? and by what mode of motion is this force to be expressed? Dr. Jackson answers some of these questions; he says "there are many varieties of discharges. Defined from paroxysm, an Epilepsy is a *sudden*, excessive, and rapid discharge of gray matter of some *part* of the brain; it is a local discharge. To define it from the functional alteration, we say there is in a case of epilepsy gray matter which is so abnormally nourished that it occasionally reaches very high tension and very unstable equilibrium, and therefore occasionally 'explodes.'"

Now this statement involves the notion that the nerve forces behave as statical electricity, that it is capable of being accumulated in the cells of the gray substance of the brain, as the electricity is accumulated on the surface of the glass plate, and that it discharges or explodes in the same manner as electricity discharges from an electrophorus or a Leyden jar. That such should occur is not only improbable, but impossible. The brain is not even a voltaic battery. Still less is it a statical electrical machine. Those who would consider it as a galvanic apparatus have only to compare it with the electrical lobes of the torpedo, to see that there is no alliance; and though certain deflections of the galvanometer needle have been obtained in experiments upon brain and nerve, there is no proof that these deflections resulted from galvanic currents proceeding from the brain as a battery; indeed, it seems much more likely that they were Thermo-electrical currents developed in the course of the experiments. In whatever way nerve force may be correlated, it certainly is not identical with galvanism; still less is it identical with electricity. Therefore, the idea of sudden and rapid discharges, unstable equilibria, and explosions must be put out of the category.

The author asserts that the function of a healthy brain is not to give out discharges, but to maintain control, and that the badly nourished brain, or as he has commonly found it in epileptics, the atrophied brain, loses its power of maintaining control, and the function becomes imperfect or irregular, and, under some circumstances, altogether ceases. The author maintains that, the seat of the expenditure of force in any movement is in the muscles, and not in the brain. Again that the function of muscle is contraction and movement, and when muscles are perfectly normal they will, if liberated from control, perform their function spontaneously, and will continue to perform it until their potential energy is exhausted. He therefore, from the evidence obtained, concludes definitely that the muscular contraction and spasm in epilepsy is the necessary consequence of a loss of cerebral control.

He explains Dr. Ferrier's experiments as follows :

He applied electrodes to various convolutions, and got contractions of corresponding muscles. Why? Not because mandates were sent from the convolution to the muscle, but because the Faradization exhausted the convolution, and the muscles contracted because they were deprived of their control. Then, again, general convulsions occurred from time to time in the course of Ferrier's experiments, these general convulsions being the result of a more or less general exhaustion of the brain from the experiment performed upon it. They certainly did not proceed from electrical force stored up in the brain. And I can not conceive how a current of Faradization passing through the brain or through any part of it can do otherwise than effect chemical change and therewith exhaustion.

Epilepsy, however produced, whether by artificial experiment or by nature's experiment (to use Dr. Jackson's language) from disease, is not a display of sudden and ruthless expenditure of stored up force, but is the manifestation of a condition of weakness and exhaustion, the primary seat of which is the surface of the brain; the exhibition of strength we further see is the loss of the potential energy of muscle, which it is the function of the

nervous tissue to control and guard, and in the muscular exhaustion is to be sought the cause of temporary paralysis which often succeeds epilepsy.

Antiquarian Scraps, is a collection of odd and curious superstitions, relating to the cause of insanity, which existed centuries ago in England and Scotland. They are merely thrown together without pretension to chronological, or other order, and most of them bear date in the seventeenth century, some of them are quotations from Shakspeare. They have value as curiosities of the literature of insanity, and as illustrations of the crude and senseless notions which prevailed upon this subject.

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REPORT OF AMERICAN ASYLUMS FOR 1873.

MINNESOTA: *Seventh Annual Report of the Minnesota Hospital for Insane*: 1873. Dr. C. K. BARTLETT.

There were in the Asylum, at date of last report, 247 patients. Admitted since, 140. Total, 387. Discharged recovered, 37. Improved, 19. Unimproved, 2. Died, 26. Total, 84. Remaining under treatment, 303.

During the year, building operations have been continued; the center, or administration building, is under contract to be completed in February, 1874, and another section and return wing on the women's side, by August next. Accommodations are now provided for two hundred patients in the new Hospital, while one hundred occupy the old structure. "Ill health," "intemperance" and "epilepsy," figure most largely in the table of causation. The idea that education is productive of insanity is combatted, principally by an ex-

tract from the article of Dr. Jarvis upon the "Relation of Education to Insanity," in which he arrives at the conclusion that insanity is the result of an *imperfect* civilization, and of an *incomplete* education. The neglect of men to care for themselves is the potential factor in the production of mental and physical enfeeblement, of disease, of insanity.

IOWA. *Seventh Biennial Report of the Iowa Hospital for Insane*: 1872-73. Drs. MARK RANNEY and H. M. BASSETT.

There were in the Hospital, at date of last report, 501 patients. Admitted since, 562. Total, 1,063. Discharged recovered, 160. Improved, 123. Unimproved, 157. Died, 128. Total, 568. Remaining under treatment, 495.

The report of Dr. Ranney covers twenty months of the biennial period. It is occupied with the general detail of the improvements carried out during this time, and with the future requirements of the Institution. Until the opening of the new Asylum at Independence, the Hospital was greatly overcrowded, the number of patients being almost double the proper capacity. A new reservoir has been completed, a new slaughter house built, water-closets have been constructed, changes in the ventilating shafts made, and other improvements in the buildings, and in the ornamentation of the grounds inaugurated.

Dr. Ranney gives his opinion of the law, which has now been in operation more than a year, entitled "An Act to protect the Insane." As strong efforts have been, and are now being made to enact a similar law in various states, this opinion of one of acknowledged ability and expertness, and who has witnessed its practical operation, is of interest and ought to have weight:

Although a great deal might be written, it seems only necessary to briefly summarize the effect of the law thus: It takes from the

superintendent, in a large measure, the moral and intellectual control, universally believed by alienist physicians to be an important part of any appropriate treatment of the insane; it seriously interferes with the general internal order and system based upon the abundant experience and labors of distinguished men for more than half a century; it certainly prevents recovery, and will therefore increase the proportion of chronic insanity in the community, already heavily enough burdened; it causes patients to be prematurely removed while still entertaining perverted or disordered feelings and notions with regard to treatment and many things associated with their disorder, giving rise to baseless prejudices in the community, and, hence, it prevents many insane persons being sent to the hospital till everything else has been tried and failed, and the curative period has passed; it unjustly impugns the integrity of the officers of the hospital, and is not calculated, however intended, to increase their zeal and interest in their work; it takes some valuable time, that might better be devoted to other work, to make answer to gross and baseless charges and complaints which it seems to invite; it creates a committee attended with no inconsiderable expense to perform duties, that can as well or better be performed by the board of trustees, most of whom serve faithfully for such periods as to become intelligently acquainted with the management and needs of the hospital, and therefore are able to wisely apply any rule or measure of government, and make suitable recommendations for additional means and facilities that may be needed; and, finally, it neither has done, nor can such a law ever do, any good, and I hope for the honor of the State, as well as for the welfare of the insane and of the hospital, it will be speedily repealed.

These candid remarks of the Doctor called forth a stringent criticism from Governor Cyrus C. Carpenter, in his annual message to the Iowa Legislature at its last session. Regarding the personalities in which he indulges we make no comment, as they are entirely a matter of individual choice and taste. He says: "I am gratified that the committee, (appointed under the act,) were able after searching investigation to report the affairs of our Hospital, administered with so much faithfulness, fidelity and professional skill. By this

report they have added to the professional reputation even of the official, who in his report treats them so cavalierly. But the fact that the Superintendents and employes of *our* hospitals are above reproach, does not prove that among all those who have to do with the insane in the different hospitals of this country there may not be now and then one who would, if left unwatched abuse his power. This was shown in the gross abuses of the Bloomingdale Hospital in New York, which were brought to light by the tact and enterprise of a newspaper correspondent." We do not suppose the Governor would willfully misrepresent the facts, but believe his attention had not been called to the report of the commission appointed by Governor Hoffman of New York, to investigate the charges of "gross abuse," made by newspaper correspondents, before mentioned. This commission was composed of the Attorney General of the State, of a member of the Board of State Charities, and one of the most distinguished physicians of the State. We make an extract from the report.

"In regard to the charge made against Bloomingdale Asylum in the public prints, we think that in order to do justice, both to the Institution and the public, we may fairly say this; that the gross cases of mismanagement and misconduct charged against it have not been substantiated, and that gross injustice has been done to the Institution in representing it as the scene of outrages and habitual maltreatment of patients." The report of Dr. Bassett gives additional information of the workings of the law:

Under the operations of the law granting to all the inmates of the hospital the same post-office right as are granted to citizens outside of the hospital, a very large correspondence has been carried on. On the 22d of April, 1872, all restrictions upon the cor-

respondence by letter between patients in the hospital and the outside world were removed, and since that time every inmate of the hospital has enjoyed the privilege of writing "when and what he pleases," without the exercise of any censorship on the part of the officers of the hospital. A record has been kept of the number of letters sent to the office in Mount Pleasant during this period of a little more than eighteen months, and it amounts to five thousand eight hundred and seventy-six. It is judged that about the same number of letters have been received by patients within the same time.

Kind hearted but injudicious friends have not unfrequently imparted news to patients of an unfortunate character, at an untimely period, with such results as to have undone in a moment all that by patient labor and watching, extending over a period of weeks or months, had by slow degrees been accomplished. In a good many instances money has been sent to patients who did not need it, and who could not use it, which has been an inducement to elopement, and has resulted in efforts to get away from the hospital which might not otherwise have been made. I hold in my possession a package of opium, sufficient in quantity to destroy life if taken at a single dose, recently sent in a letter to a patient, who, a week before his admission to the hospital, had attempted suicide by cutting his throat. He had written to his friends that he was restless at night, and could not sleep, and wanted "something to quiet his nerves."

From an editorial on "Legislation for the Insane," in the *Philadelphia Medical Times*, of March 14th, we extract the following remarks:

Can any one tell us by what fatality it is that amateur philanthropists and the chosen legislators of the State, when undertaking to promote the interests of the insane, frequently seem to have as completely lost their wits as the poor creatures who have awakened their sympathies? Certainly, the total ignorance of insanity and the ways of the insane, the palpable absurdity, the gross violations of common sense, that mark many of their performances in this direction, would be scarcely conceivable without the testimony of actual experience. During the last half-dozen years, many of our States seem to have been endeavoring to outdo one another in absurd and mischievous legislation for the insane. That demagogues should find it a sure card to clamor about tyranny, and

wrong, and people's rights, and that amiable men sincerely anxious to do good should be instant, in season and out of season, with their pet schemes for accomplishing some unwise, if not impracticable, project, is what might be expected in the ordinary course of things; but it is surprising to see how readily, in a matter of so much importance, involving the peace of families and the safety of individuals, legislators stultify themselves by enactments pre-eminently foolish.

A few years hence, it will become one of the curiosities of human credulity that, in the seventh decade of the nineteenth century, a poor crazy woman, relying only on her nimble tongue, visited the legislatures of several of the States, and persuaded them to pass an act, framed by herself, for the government and surveillance of their hospitals for the insane; an act ignoring every principal of moral management supposed to be established by the experience of men enlightened by the science and imbued with the humanity of the age, and fitted only to introduce into those abodes of peace, quiet, seclusion, patience, and trust, a state of perpetual restlessness, anxiety, irritation, and distrust. Although these institutions are controlled by Boards of Trustees or Managers, comprising men whose character entitles them to unlimited confidence, yet her project provided another board, entirely independent and uncontrolled, and armed with plenary power to visit the hospitals whenever they pleased; to enter every hall and room, unaccompanied by any officer of the house; to hear every patient who had any complaints to make; to call before them the attendants, and sit in judgment on their conducts as represented by the patients, and to discharge both patients and attendants, without let or hindrance from any other authority. To inspire the patients with distrust of the officers, and withdraw them as much as possible from their control, a letter-box is to be placed in every hall, into which the patients are directed to drop their letters, sealed; and the officers are bound under heavy penalties to stamp and forward them, unopened, to whomsoever they may be directed. Letters to patients are also to be delivered unopened.

An act embodying these provisions was passed by the legislature of Iowa a year or two since, and by that of Maine, if we are not misinformed, the present winter. We are glad to say that in some other States where this woman has labored she has not been so successful, although with that sort of glamour which bewilders so many persons of deranged intellects, she imagines, and so represents that she has never failed. What the result has been in

Iowa we learn from the reports of Dr. Ranney, the late superintendent, and of Dr. Bassett, his successor, premising that the former, after a service of eight years long, highly creditable to himself and incalculably valuable to the hospital, resigned in disgust. He says that the authority of the officers was superseded by another, guided by no knowledge of insanity, and working under the profound conviction that every officer and employé of the hospital was abusing his trust; that the latter soon came to be regarded by the patients as their natural enemies and oppressors; that all the salutary influences springing from their proper relations to each other were destroyed; that the habit of writing letters, and expecting replies that did not always come, produced in the patient a state of chronic irritation not very favorable to recovery; that friends were alarmed by their stories of abuse; that the time and temper of the officers were taxed beyond endurance in replying to the anxious inquiries and complaints thus produced; that the best attendants refused to remain where they were perpetually charged with wrong-doings and condemned without a fair trial; and that many a patient was prematurely removed, to drift, very likely, into chronic insanity. Dr. Bassett testifies to the same results, and speaks particularly of the evils arising from the unrestricted correspondence. To any person possessing the faintest sense of propriety or the smallest modicum of common sense they are shocking enough, but to the average legislator, no doubt, they are the welcome outcome of a blessed reform.

The legislature of our Commonwealth has committed no folly exactly like this. It has placed no letter-boxes in the halls of the hospitals, and no case of suicide from opium can be fairly charged to its account. But it has made it a penal offence for the officers to withhold any letters of patients addressed to their counsel,—meaning thereby any one they happen to hear of as a lawyer,—or to debar the latter from seeing and conversing with the patients, if they wish it. The act is of little importance, because, with the kind of freedom now enjoyed by the inmates of our hospitals, letters may be written and smuggled out every day in the week: and lawyers enough will be found ready to “take hold,” provided they can see any money in it. The patient may have nothing, but his friends may do the handsome thing rather than to be dragged into court to reveal the troubles and trials of the family. Revolutions, it is said, never go backwards: so in the fulness of time we may have here letter-boxes in the halls, whereby men of proverbial wisdom and rudence will proclaim their follies to a jeering world,

and women, delicate, refined and modest,—wives, mothers, sisters, daughters,—moved as they often are in insanity, by the coarser feelings of their nature, will reveal their inmost thoughts in a manner, the consciousness of which, on recovery, will overwhelm them with mortification and dismay. This is shocking no doubt, to every person of any proper sensibility; but let the public advance a little further in its contempt for all special knowledge, and be more ready on any matter of insanity to follow the lead of crazy women and amateur reformers, rather than the counsels of those who have made it the study of their lives, and we shall be following the example of Iowa and Maine. Follies of the kind we have been describing we shall always have, so long as people talk of what they know little or nothing about, and, under pretence of righting some great wrong or reforming some flagrant abuse, obtain ready credence from those who know as little about it as themselves.

The report of the visiting committee is also before us, and we can see just what has been accomplished. The range of duties under the law, as understood by them, is, to ascertain from time to time whether any of the inmates are improperly detained in the hospital, or unjustly placed there; whether the inmates are humanely and kindly treated; to correct existing abuses, discharge employes and attendants, for causes specified in the statute; to see that patients are supplied with ink and stationery for letter writing, that inter-communication with the outside world by letter shall not be interfered with, and keep printed posters of the names, and post office address of the visiting committee in each ward, and to make annual reports to the Governor.

An investigation was held regarding the improper detention of three cases. In one, the patient was removed pending the examination. This was her second commitment to the Asylum, from which she was before discharged recovered.

Another case was manifestly one of chronic insanity, but the patient pleaded so strenuously to be set at lib-

erty, that the committee granted him a trial, saying if it did not prove best he would likely find his way back to the same hospital.

The third case is still under advisement. In one or two other cases, further developments are awaited. The committee acknowledge themselves puzzled by the so-called cases of moral or intellectual insanity.

Four cases of alleged mal-treatment, have received a thorough investigation, but the complaint was not sustained in either case. No formal report was made concerning the matters in the third division of duties devolving upon the committee. It is presumed however that these were well attended to, from the number of letters sent out. Upon the general management of the institution as to order, discipline, neatness, cleanliness, the classification of patients, and the dietary, the committee speak in unqualified praise. The air of some of the wards was not as pure and wholesome as could be desired but, this is attributed to the overcrowding, and to imperfection in the system of ventilation, and will admit of remedy.

Such is in short the meager result on the credit side of the commission, though we fail to see any benefit to the insane, or the people of the State. The extracts from the Asylum reports, show the opposite leaf of the ledger. The board seem to have performed their task without prejudice, and with some appreciation of the difficulties under which the responsible head of such institutions constantly labors. There is one feature of the report which is noticeable, and significant, viz: the complete dependence of the committee upon the officer of whose ability they are made the judges, and whose management they are to investigate. His expertness and knowledge have been freely furnished, and as freely used by the commission. The consistency of such a

course does not appear, nor in truth would there seem to be any necessity for the existence of such a body. The State has already placed the Asylum under the control of a responsible board of managers, of men appointed by the Governor, under legislative action, for their fitness for such a trust. To them should be entrusted the care of the institution, and we submit the question, does not the State stultify itself by creating another board to watch this and to divide its powers? What is to be the limit of this surveillance, and when will it cease?

Modern philanthropy seems to have run mad upon this subject, and a little popular favor and notoriety can be gained by working upon the credulity of the people, regarding the danger to personal liberty from improper confinement in asylums. Each year numerous measures are introduced into legislatures, to correct imaginary evils. In Ohio, an effort is being made to enact the law of trial by jury before committal to asylums. In Illinois the proposition is made to put all the State Asylums under the control of a State Board of three, to be elected by the people. Other schemes, in other states are brought forward, whose only effect will be to destroy the good of the present system, while they give only evil in return. No one would oppose a measure which should correct abuses, or throw any needed safe guard around the liberty of the individual. Most of these measures, however, have at the bottom, some political preferment, and are urged by those pseudo-philanthropists who know little of the subject, and have not the true interest of the insane at heart. They result in the multiplication of legal enactments, and place obstacles in the way of the speedy transfer, and admission of patients to the institution, prepared for their special use and care.

IOWA. *First Biennial Report of the Hospital for the Insane at Independence*: 1873. Dr. A. REYNOLDS.

Number admitted to Hospital, 136. Discharged recovered, 12. Improved, 3. Unimproved, 8. Total, 23. Remaining under treatment, 113.

This Institution was opened for patients on the first of May, 1873. It received a large number of the chronic class from the State Hospital at Mount Pleasant, and of those admitted directly from the counties, sixty-one per cent. had been insane for more than one year. The great requirement of the Hospital is more room. The present number, 113, is crowded into four wards, which have a capacity for only ninety, other wards will, however, soon be prepared, but the accommodations are all demanded by the present number of insane in the State.

KENTUCKY. *Report of the First Kentucky Lunatic Asylum*: 1873. Dr. GEO. SYNG BRYANT.

There were in the Asylum, at date of last report, 551 patients. Admitted since, 92. Total, 643. Discharged recovered, 25. Removed, 49. Died, 39. Elopel, 2. Total, 115. Remaining under treatment, 528.

The report of the managers is largely occupied with a statement of the defects of the new law of organization, and with suggestions for their remedy.

Serious difficulties are found to exist to making the distinction demanded by law in regard to the admission of acute cases only to the Hospital. There is an urgent necessity for an increase in the water supply, and for enlargement of the laundry, and extensive alterations and repairs in the buildings.

INDIANA. *Annual Report of the Indiana Hospital for the Insane :*
1873. Dr. ORPHEUS EVARTS.

There were in the Hospital, at date of last report, 468 patients. Admitted since, 320. Total, 788. Discharged recovered, 156. Improved, 44. Unimproved, 50. Died, 64. Total, 314. Remaining under treatment, 474.

The report is mostly a record of the progress made in repairing and improving the Hospital buildings. Some 64,000 dollars have been expended in this direction. Upon the completion of this design, Dr. Evarts maintains the State of Indiana will possess an Institution which will fully meet all the requirements of a model hospital for the treatment of the insane.

MISSOURI. *Report of the St. Vincents Institution for the Insane :*
1869-1873. Dr. J. KEATING BAUDY.

This is a private Institution located in the City of St. Louis. It has received during the period covered by the report, 1,020 patients. It furnishes accommodations for inebriates as well as the insane, the former, however, must voluntarily place themselves under treatment. Extensive additions have recently been made, and there are now 213 patients in the Institution.

KENTUCKY. *Report of the Second Kentucky Lunatic Asylum :*
1873. Dr. JAMES RODMAN.

There were in the Asylum, at date of last report, 313 patients. Admitted since, 73. Total, 386. Discharged recovered, 29. Improved, 6. Unimproved, 4. Eloped, 2. Transferred to Fourth Asylum, 33. Died, 30. Total, 104. Remaining under treatment, 282.

OHIO. *Nineteenth Annual Report of the Northern Ohio Lunatic Asylum*: 1873. Dr. J. M. LEWIS.

There were in the Asylum, at date of last report, 178 patients. Admitted since, 237. Total, 415. Discharged recovered, 73. Improved, 47. Unimproved, 14. Died, 31. Total, 165. Remaining under treatment, 250.

The labor of rebuilding the Asylum was begun in May, 1873. "The two rear wings are up, roofed and inclosed; the heating apparatus is being put in, and in one wing it is nearly ready for use, and the inside work is being rapidly completed. The foundations for all the other sections of the buildings are in, and the stone work completed up to a level of the first floor beams." "We confidently expect, and believe that the wings already inclosed will be fully completed by the first day of April, 1874, and that the whole building will be completed for use by the first of January, 1875." During the year, the Institution has been seriously overcrowded in the effort to accommodate the greatest number of patients possible. Dr. Lewis presents for the acceptance of the board his resignation, as Superintendent, to take effect in April, 1874.

OHIO. *Thirty-fifth Annual Report of the Central Ohio Asylum for the Insane*: 1873. Dr. W. L. PECK.

This report gives the details of the work done upon the Asylum buildings now in process of construction:

The work now presents to view an elevation of the main central or administration building to the level of the second floor above the basement, the assembly hall building to the level of the third floor above the basement, and the four sections of the north wings partly to the same level, and the remainder to that of the second floor. Of the south wings, the first section is to the level of the third floor above the basement, and the second, third and fourth sections to the same level as those of the north wings. The rear central wing has advanced from the stone foundations, where the

work rested last year, to the completion of the whole elevation; and at the present writing the iron-work of the roof is being placed in position, and the slaters are on the ground preparing their work for completing the roof, if possible, before the cold weather sets in. The smoke-stack and ventilating tower is carried up to the height of 105 feet, leaving but 60 feet to be added for its completion.

To properly appreciate this show of progress it is necessary for a person to be on the ground, and take within his view the great extent of the work—over one mile of outer wall—and from personal observation make the comparison.

OHIO. *Nineteenth Annual Report of the Southern Ohio Lunatic Asylum*: 1873. Dr. H. C. RUTTER.

There were in the Asylum, at date of last report, 636 patients. Admitted since, 239. Total, 875. Discharged recovered, 157. Improved, 24. Unimproved, 37. Transferred, 30. Died, 67. Total, 315. Remaining under treatment, 560.

During the year the Institution suffered from an epidemic of small pox. The first case occurred in December, 1872, and the disease continued, despite all efforts to eradicate it, till May, 1873. In all 38 patients were attacked, of whom 12 died. But one case occurred among the men. The manner of its introduction to the Asylum, has not been satisfactorily accounted for. The disease first manifested itself in a woman who had been in the Asylum for three months, and during that time had never left the ward in which she was first placed. She had received no visitors, letters or articles of clothing, and no new patients had been placed in the ward. It may have been introduced by one of the attendants, who though protected may have exposed herself while on leave from the Asylum. This was the only way in which we could account for the epidemic, which visited the Asylum at Utica, two years ago. In

June last, Dr. S. J. F. Miller resigned his position of Superintendent, and Dr. H. C. Rutter was appointed temporarily to the place.

The board express regret that owing to the inadequate compensation, he feels himself obliged to relinquish his position in the Institution. Dr. J. L. McLean, assistant physician has also resigned for the same reason. This subject of compensation, has been commented upon in previous reports of the Asylum, and in the JOURNAL. It would seem that the State had pursued this "penny wise" system long enough, and that policy alone, setting aside justice, would induce it to pay its servants at least a moderate and respectable compensation for their services.

OHIO. *Fourteenth Annual Report of the Longview Asylum* : 1873.
Dr. J. T. WEBB.

There were in the Asylum, at date of last report, 578 patients. Admitted since, 175. Total, 753. Discharged recovered, 78. Improved, 31. Unimproved, 21. Eloped, 1. Not insane, 6. Died, 49. Total, 186. Remaining under treatment, 565. Dr. Webb repeats the recommendation of last year, for the appointment of a special pathologist. He also recommends the erection upon the grounds of the Asylum, of a special hospital, for the treatment of epileptics. This subject is now attracting the attention of the specialty, and we trust the efforts now being made in this State and in Ohio, will result in the attainment of the object, for separate provision for this unfortunate class. The reasons for such a step as presented by Dr. Webb, will meet the approval of, and commend themselves to those interested in the care of the insane and epileptic classes.

MAINE. *Report of the Maine Insane Hospital*: 1873. Dr. H. M. HARLOW.

There were in the Hospital, at date of last report, 393 patients. Admitted since, 200. Total, 593. Discharged recovered, 83. Improved, 36. Unimproved, 20. Died, 43. Total, 182. Remaining under treatment, 411.

The affairs of the Institution are in a flourishing condition, \$12,000 being carried to the new account of the year. A recommendation is made for the erection of another asylum. The doctor has given a short analysis of the causes which lead to insanity. His conclusion is, that worry and mental anxiety do more to undermine the health, and produce mental aberration, than intellectual labor and mental work, even when continued through the years of a long life. Nearly all who have asked for admission have been received. The recoveries for the year have averaged more than 40 per cent. on the admissions.

MASSACHUSETTS. *Forty-first Annual Report of the State Lunatic Hospital, at Worcester*: 1873. Dr. B. D. EASTMAN.

There were in the Asylum, at date of last report, 439 patients. Admitted since, 407. Total, 846. Discharged recovered, 98. Improved, 148. Unimproved, 62. Died, 69. Total, 377. Remaining under treatment, 469.

In June last an epidemic of small pox appeared in the Institution, the source of infection being entirely unknown. The cases were immediately moved to a vacant cottage, and the isolation was made so complete that the number of cases was limited to three, without any fatal result. The plans for the new hospital buildings are completed, and have received the approval and endorsement of the most experienced superintend-

ents of institutions for the insane. The work has been prosecuted with vigor, and nearly one-fourth of the foundations were laid before last fall.

MASSACHUSETTS. *Fifty-sixth Annual Report of the McLean Asylum for the Insane*: 1873. Dr. GEORGE F. JELLY.

There were in the Asylum, at date of last report, 164 patients. Admitted since, 92. Total, 256. Discharged recovered, 19. Improved, 45. Unimproved, 18. Died, 13. Total, 95. Remaining under treatment, 161.

RHODE ISLAND. *Report of the Butler Hospital for the Insane*: 1873. Dr. JOHN W. SAWYER.

There were in the Hospital, at date of last report, 134 patients. Admitted since, 94. Total, 228. Discharged recovered, 34. Improved, 39. Unimproved, 10. Died, 16. Total, 99. Remaining under treatment, 129.

The most noteworthy incident of the year, is the presentation to the institution by David Duncan, one of the trustees, since deceased, of \$30,000, to be expended in the erection of a new ward, for the treatment of acute cases. The condition of the gift was, that an equal amount should be raised by subscription. A plan of the new ward is presented in the report. It contemplates the erection of a hospital ward, so arranged that it can be readily entered without passing through any of the wards or rooms of the Asylum buildings. By means of this munificent gift, the facilities for treatment, as also the accommodations will be materially increased. We would be pleased to record many other such deeds of charity and benevolence.

NEW YORK. *Fifth Annual Report of the Willard Asylum for the Insane*: 1873. Dr. JOHN B. CHAPIN.

There were in the Asylum, at date of last report, 672 patients. Admitted since, 169. Total, 841. Discharged recovered, 6. Improved, 8. Unimproved, 9. Died, 48. Total, 71. Remaining under treatment, 770.

In February last, a group of detached buildings was completed, and occupied by men patients. An appropriation is asked for the erection of a similar group for women patients. The cost of the new structures was \$100,000, and they are made to accommodate 200 patients. This makes the apparent cost \$500 per capita. In this estimate is not included the cost of land, or the main hospital buildings with all the necessary out buildings for the proper administration and conduct of the whole establishment. The cost per week, has been \$3.09 per capita, with an addition of \$15.00 per annum, for clothing. This, however, does not comprise the annual appropriation for officers salaries, extraordinary expenses, appropriations for farm, &c.

The Managers and Superintendent, express themselves as pleased with the plan for taking care of all the chronic insane of the State, and urge the preparation of sufficient accommodations to carry out the design. Although so many patients have been provided for, the great mass are still in the county asylums. Dr. Hoyt the secretary of the Board of State Charities, says:

“The number of insane at present in the county poor houses is nearly as large as in 1868, but they are in a much better condition.”

This is attributed to the fact, that the more violent and disturbed cases have been removed to the Willard Asylum.

A request is made for appropriations to carry out this policy of caring for all the chronic insane of the

State, but Dr. Chapin distinctly says, "this number is large, and will increase more rapidly than we can possibly furnish the Asylum accommodation." From this showing, the problem is still far from a solution.

NEW YORK. *Second Annual Report of the New York City Asylum for the Insane*: 1873. Dr. THEO. H. KELLOGG.

There were in the Asylum, at date of last report, 469 patients. Admitted since, 392. Total, 861. Discharged recovered, 116. Improved, 49. Unimproved, 30. Not insane, 3. Died, 104. Total, 302. Remaining under treatment, 559.

Although no epidemic has prevailed in the Asylum, the death rate is quite large, being twelve per cent. upon the whole number treated. This is accounted for by the character of the cases admitted. Twenty-four, or nearly one-fourth of the number, died within one month from the time of admission.

Among the remedial measures employed, Dr. Kellogg dwells at some length upon, and gives a very favorable report of, the use of the Turkish bath.

As this is the only Institution in this country, in which a trial has been made of this mode of treatment, we transcribe, at length, the Doctor's remarks:

During the year past there have been prescribed and administered to our patients two thousand two hundred and eighty Turkish baths. The effects of this treatment in the various stages and forms of insanity have been carefully noted, and they have been so highly favorable as to forcibly suggest the conclusion that the Turkish bath is a remedial agent of great efficacy and wide applicability in mental diseases.

The direct result of this treatment is to stimulate the functions of the skin, to strengthen and equalize the circulation, and to hasten secondary assimilation, as well as the retrograde metamorphosis of tissues. The first effect is often a slight loss of flesh, followed by an increased appetite and subsequent gain in weight. The patients seldom object to the bath, and many come to regard it as an actual luxury.

From our experience with this remedy in the different forms of insanity, we consider it especially applicable in the following class of cases :

In melancholia, with the skin dry, harsh, and of furfuraceous aspect, with capricious appetite, and general torpidity of the abdominal organs.

In primary dementia, where the capillary circulation is greatly impaired, the excretory functions of the skin suppressed, and the whole surface has a characteristic cyanotic appearance.

In alcoholic mania, with organic weakness of the liver or the kidneys, and tendency to anasarca.

In epileptic mania, where the physical disease is masked, and exacerbations of mental disturbance take the place of the convulsions.

In cases where there is restless excitement, with hyperesthesia of the skin, tactile illusions, and perverted sensation of the peripheral nerves.

In acute and chronic mania, as an effectual sedative to violent excitement, where narcotics are contra-indicated.

In a numerous class of cases where the manipulations of the bath afford an admirable passive exercise, which is a substitute for the more active exertion, which the patient is unwilling or unable to make either in-doors or in the open air.

In cases with organic disease of the brain, heart, or lungs, it is a valuable adjuvant in palliative treatment, but must be used very guardedly. The same caution is not required in cerebral congestion due to functional or circulatory derangement, where its use is followed by marked relief.

In conclusion it may be said that the Turkish bath is not more expensive than other appliances in the treatment of mental diseases, and it should be made one of the curative resources of every Hospital for the Insane.

REPORTS AND PAMPHLETS RECEIVED.

A plea for the Insane in the Prisons and Poor Houses of Pennsylvania: by the Board of Public Charities. GEORGE L. HARRISON, Chairman, 1873.

Addenda to a plea for the Insane in the Prisons and Poor Houses of Pennsylvania: 1873.

Memorial. Report of Committee of the Medical Society of the State of Pennsylvania in reference to the proper care of Insane Criminals.

Statement of the Trustees of the Pennsylvania State Lunatic Hospital in regard to certain changes of the Board of Public Charities of Pennsylvania with an appendix: 1874.

A circular letter to the Senate and House of Representatives of the Commonwealth of Pennsylvania: by the Superintendents of the Asylums of the State.

We append a brief narration of the facts which led to this mutiplicity of pamphlets, and which has brought about a wordy conflict between the Board of State Charities and the various Insane Hospitals of the State. The question of the care of the criminal insane was under discussion. The Board of State Charities recommended the setting apart a portion of the new State Asylum, at Danville, for the reception of this class. The Superintendents opposed this measure, and recommended the establishment of a separate hospital in connection with one of the State Prisons, as has been urged in other States, and successfully adopted in the State of New York.

There would seem to be no irreconcilable difference in this seeming conflict of authorities. All agree in the first place that the criminal and convict insane should be properly cared for. The Superintendents of the several asylums and the State Medical Society, maintain that they should be cared for in institutions connected with the prisons. The Board of Charities, that a part of one of the ordinary asylums should be set apart for them. To those of experience there are great objections to the propositions of the Board, and in the State of Pennsylvania when the ordinary insane are so largely unprovided for, such a course would seem positively wrong.

In furtherance of this design, the Board of State Charities issued the "plea for the insane," soon followed by the "addenda" in which the State Hospital, at Harrisburg, was directly attacked. The charge was made that that Institution had not carried out the law of its organization, inasmuch as it received and retained a large proportion of the paying class of patients. The trustees of the Hospital sustained their action by showing the intent of the law to be, the care of the indigent as well as the pauper insane, and also that no recent cases of the pauper class had been refused admission, and further, that the public officers, as a matter of economy, had neglected to avail themselves of the use of the Hospital, and that as trustees they had not the power to compel the officers to send patients to the Asylum, and, therefore, that they had properly utilized the Institution.

The State Medical Society, through their committee, in the "memorial," urge the erection of a separate hospital for the convict and criminal insane, and in the circular letter, the Superintendents of the various Asylums urge upon the Legislature the adoption of the same plan. It is important to keep in view the general principles which should control the action of those having power in the premises. All are united in the belief that the highest duty of the State is to care for all the insane, and if this can not be done at once, the recent cases should have the preference.

This has apparently guided the action of those in charge of the asylums. That the Board of Charities have found in the prisons and county houses, cases of great suffering, whose inhuman treatment calls for sympathy and relief, is, no doubt, true. They have investigated these cases, and made themselves familiar with their histories and their necessities. We search

in vain, however, for any decisive action looking to the amelioration of their condition. Why are not the public officers made to perform their duty in sending the acute cases to the Asylum. There is no proof that they have ever been refused admission, or if the transfer is not advisable from the chronicity of the disease, why are they not made more comfortable where they are. If the Board have not the authority in this matter why should they not ask for it? They have the general supervision of the county houses, and should have the power to act wisely and humanely, to compel the county authorities to take better care of these unfortunates. Can they not enforce the simple rules of hygiene and decency, and insist upon their being kept clothed and clean, and being properly housed and fed. What is the object of a Board of State Charities? Perhaps only suggestive. It would seem that time and money spent in this direction would more than repay the outlay, and would be a better investment than that wasted upon a contest which has unfortunately degenerated into personalities.

Transactions of the American Ophthalmological Society, Ninth Annual Meeting: Newport, July, 1873.

Ninth Annual Report of the Illinois Institution for the Education of Feeble Minded Children: Jacksonville, 1873.

Private Institution for the Education of Feeble Minded Youths: Barre, Massachusetts, 1873.

Thirteenth Annual Report of the Indiana Institution for Educating the Deaf and Dumb: 1873.

Third Annual Report of the St. Joseph's General Hospital: Baltimore, 1873.

Second Annual Report of the Roosevelt Hospital: New York, 1873.

Second Annual Report of the Dispensary of Skin Diseases: Boston, 1873.

Report of the United States Marine Hospital Service: 1873.

This report is made by Dr. John M. Woodworth, Supervising Surgeon. Besides the statistical matter, it contains several special reports, one on Hospital Construction, with plates; on the epidemic of yellow fever of 1873; on urethral strictures; the sailor and the service in New York; and the river boatmen of the lower Mississippi.

Annual Report of the Commissioners of Emigration of the State of New York: 1873.

Galvano-Therapeutics. A revised reprint of a report made to the Illinois State Medical Society, 1873. DAVID PRINCE, M. D.

An Inquiry Concerning Priority in the Ligation of the Internal Carotid Artery. WILLIAM K. BOWLING, M. D., Nashville: 1874.

Medical and Pharmaceutical Notes on the Preservation of Hypodermic Solutions; on Ergot and its Preparations; on Rhubarb; on Physician's Pocket Cases; on Buying Alcohol and Distilled Spirits; on a General Apparatus Stand, Upright Condenser, Pinchcock and Burette Stand: EDWARD R. SQUIBB, M. D. Republished from the proceedings of the Pharmaceutical Association: 1873.

The Application of Electricity to the Central Nervous System, (central galvanization) by A. D. ROCKWELL, A. M., M. D.

Report on some of the Recent Researches in Neuropathology: by W. B. NEFTEL, M. D. (Reprinted from Archives of Scientific and Practical Medicine.)

Clinical Notes on Nervous Diseases of Women: W. B. NEFTEL, M. D. Reprinted from the Archives of Scientific and Practical Medicine.

Changes of temperature and pulse in Yellow Fever: JOSEPH JONES, M. D., of New Orleans. Reprinted from the American Practitioner, September, 1873.

Legal responsibility in old age, based on researches into the relation of age to work: GEORGE M. BEARD, M. D.

An Eye case in the Courts: C. A. ROBERTSON, A. M., M. D., Albany.

Excision of the Thyroid Gland: by PATRICK HERON WATSON, M. D., F. R. S., F. R. S. C. E. Edinburgh, 1873.

A Lecture on the True Nature and Origin of the Salivary Globules and their identity with the white corpuscles of the blood: JOSEPH G. RICHARDSON, M. D., Philadelphia, 1873. Read before the Association of Dental Surgery.

Origin and Propagation of Disease: JOHN C. DALTON, M. D. Delivered before the New York Academy of Medicine, November, 1873.

Report on Compulsory Education: by DEXTER A. HAWKINS, New York, 1874.

BOOK NOTICES.

A Dictionary of Medical Science, with accentuation and Etymology of the Terms and the French and other Synonyms. By ROBLEY DUNGLISON, M. D., LL. D. A new edition, enlarged and thoroughly revised by RICHARD J. DUNGLISON, M. D., Philadelphia: HENRY C. LEA, 1874.

A Dunglison's dictionary is one of the first books every American student purchases for his library. If by good fortune he is able to possess other volumes of the same character, he is rarely satisfied in his search for words and their meaning, till he has consulted this authority; for such Prof. Dunglison always was, especially to those students who were graduated at Philadelphia, and who knew him personally, or by reputation.

By those who have used this work, the want of a revision has been felt for some years. The growth of medical nomenclature in all its departments has been rapid and constant, and many times we have turned away disappointed in the search for some word met with in the course of reading. It is now a source of pleasure to know that this want is fully met in the new edition. This includes more than *six thousand* new subjects and terms, not embraced in the last, and contains 160 pages of additional matter. In some of the English Medical Journals, we find the etymology and pronunciation of some terms freely criticised. Though we can not in all cases approve those given in this work, still allowance must be made for differences of opinion which may be fairly entertained. The definition of medical terms is to the mass of practitioners, the really practical and valuable part of the work, and in this respect, Dunglison's dictionary is not surpassed by any in the language.

A Universal Formulary containing the methods of Preparing and Administering Official and other Medicines, adapted to Physicians and Pharmacutists. By R. EGLESFIELD GRIFFITH, M. D. Third edition, carefully revised and much enlarged. By JOHN M. MAISCH, Phar. D., Professor of *Materia Medica* and Botany in the Philadelphia College of Pharmacy, with illustrations, Philadelphia: HENRY C. LEA, 1874.

This work is a compendious collection of *formulae*, and of pharmaceutic processes, and is adapted especially to the needs of physicians and apothecaries. The remedies are arranged in alphabetical order, and a short history giving the sensible properties and medicinal uses of each, precedes the *formulae*. These are numerous, and include one or more combinations of every form, both solid and liquid, in which the drug may be used. The proportions are fully written out, as the

author believes all prescriptions should be, to avoid the possibility of error. Directions are given for the pharmaceutical processes demanded for all the preparations of the pharmacopœia. This is followed by a list of all the poisons with their antidotes. The incompatibilities arising in the combinations between different drugs are carefully pointed out. The work is supplied with indices of diseases and their remedies, of pharmaceutical and botanical names, and a complete general index. It is replete with information, and forms a most valuable addition to the Dispensatory.

A Manual of Psychological Medicine, containing the Lunacy Laws, the Nosology, Ætiology, Statistics, Description, Diagnosis, Pathology and Treatment of Insanity, with an appendix of Cases. By JOHN CHARLES BUCKNILL, M. D., London, F. R. S., F. R. C. P., Lord Chancellors Visitor of Lunatics, and DANIEL HACK TUKE, M. D., Member of the Royal College of Physicians, of London; Foreign Associate of the Medico-Psychological Society of Paris; formerly Lecturer on Psychological Medicine, at the York School of Medicine, and Visiting Medical Officer of the York Retreat. Third Edition, Revised, Illustrated, and much enlarged, Philadelphia: LINDSAY & BLAKISTON, 1874.

The Manual of Psychological Medicine, was first presented to the profession in 1858, as a systematic treatise upon insanity. Since that time, other works of merit have appeared and been received with favor. Griesinger in Germany, and Blandford in England, have done much to advance medical science, in the department of psychology. It has been a period of great activity, of careful research, and scientific investigation. The Associations of those engaged in the specialty, and the publication of journals devoted to the subject, have done much toward collecting and arranging facts, deducing conclusions, and establishing psychology upon the only correct basis, that of physiology and pathology. In this period, more has been done than ever before, in

the same length of time, to prove the dependence of insanity upon morbid physical conditions. The aid of the microscope and chemistry has been invoked, and the crude and imperfect methods of investigation, which were once considered satisfactory, have been discarded. The authors state in their preface, that the active development of psychological medicine during recent years, has compelled them to amplify their work. The great principle that mental disease depends solely upon cerebral conditions, which was systematically taught in these pages fifteen years ago, has now become so thoroughly established, that it is no longer questioned. Its full recognition, however, has been followed by such activity of observation and research, that the field of inquiry has been extended in every direction, and at the present time it may be truly said, that new opinions, new forms of insanity, and new remedies, have been, and are being multiplied, at a rate which far outstrips the steady march of consolidated knowledge * * * *

Practically, however, psychological medicine has to teach what is known of mental disease, and how to deal with it, and to these the authors have endeavored to restrict themselves. Dr. J. Batty Tuke is the author of the histological portion of the chapter on pathology, and the authorship of the volume is divided as before between Drs. Bucknill and Daniel H. Tuke.

The work has been so long before the public, and has attained such a position in the opinion of the profession, that we shall not attempt an extended review, but shall speak of some of the changes and additions.

The difficulty in the way of making a proper and comprehensive definition of insanity, the author states, is found in the attempt to combine the two objects, viz: the medical and the forensic. And further adds, that

it is impossible to include both of these ideas in one definition, without narrowing it too much for medical use, or making it too comprehensive for the just demands of the law.

The real defect in many of the definitions presented, is found in the non-recognition of the physical origin of the disease, by reason of which it is made to include all the normal eccentricities and peculiarities of the individual; and in the second place, in encumbering it with metaphysical distinctions, regarding the various mental faculties, of understanding, will, &c. In either case the result to the witness is equally disastrous. He either deprives himself of the power to make a true differentiation, by the only safe guide, that of disease, or is put in inextricable confusion, by his efforts to disentangle the web which his metaphysical theories have thrown around him. The author says, "whatever definition of insanity is adopted by the student, it is all important that he should regard bodily *disease*, including *defect*, as an essential condition."

This is good and safe advice, and if fully adopted would save the medical profession from much of the opprobrium which arises from the diversity of opinions among doctors, in trials involving the question of insanity.

The sections on ætiology, and statistics, show much labor and research; the opinions and experience of a large number of both English and American and foreign writers have been collated, and are given at length, in elucidation of the subjects. The statistics of various institutions have been largely utilized, and the conclusions have thus been formed from a large mass of evidence. A large portion of the matter referrible to these subjects has been given from the old edition of the Manual. The results arrived at are in the main those generally accepted by the specialty.

The chapter on the various forms of insanity, contains much of the subject matter of the previous editions. It is, however, introduced by some preliminary remarks regarding the necessity of studying the physiology of the nervous system, psychology, and the disorders of the nervous system generally. Among the forms we see repeated, those of delusional insanity, of moral, of emotional, homicidal, suicidal, "*et id omne genus*." We are sorry that the sanction of such authority should be given to the multiplication of manias, and forms of insanity, which answer no good purpose, but only serve to complicate the subject, and to give importance to, and elevate into a class, simply accidental circumstances, or minor differences arising in the course of an attack of insanity. The old term monomania has been as far as possible discarded, and the wish is expressed that it had never been introduced into psychological nosology.

The arrangement of matter is such as to give more coherence and clearness of statement than before. New cases have been introduced, the ætiology and prognosis is given in connection with each form, and the whole is made more attractive in appearance, and of easier reference by the use of more displayed type. Sphygmographic tracings, and specimens of hand-writing, characteristic of different conditions in insanity are annexed to the chapter.

Chapter four, gives a brief sketch of the various forms of insanity from a somato-ætiological point of view. This is entirely new matter, and gives the authors idea of classification. It resembles that originated by Skae in deriving the form of insanity wherever it is practicable from the ascertained physical cause. It recognizes direct psychical causes, and to that extent lacks in unity. It is easily comprehensible, and

more complete in its detail than most of those presented. We do not, however, believe it will command such assent from the profession as will lead to its adoption. Such a system of classification has yet to be formed, and is certainly much to be desired.

Chapter five, on the diagnosis of insanity, is a reprint from former editions, save the one section on the diagnosis of recovery, which hitherto has attracted little attention from authors. The character of the disease, and the consequences attached to the decision, involving as it does the discharge of a patient from an asylum, and the resumption of business duties, often of great magnitude, or in cases of persons who have been dangerous while insane, the safety and peace of community make this an important subject. The symptoms enumerated on which the diagnosis of recovery are to be based, refer only to the mental condition of the individual and his power of self control. The physical appearance of the patient is not mentioned.

This is often the question of paramount importance. As the authors have made the cerebral condition the factor upon which mental disease depends, it is a matter of surprise that they make no note of the physical state among the signs of recovery. It often, yes usually happens that the mental aberration disappears, that the patient becomes quiet, well behaved, and rational in conversation before there is a complete re-establishment of health. This is the most critical period in the history of the case. It is the time when from any indiscretion or excess of physical or mental exertion, a relapse may readily occur. There is great instability of both nerve and muscular element. Strength is not attained. In the progress of convalescence, generally with the cessation of the stage of excitement, whether in cases of melancholia or

mania, there usually comes a condition of physical and mental repose. This state has its well marked symptoms. There is sluggish action in the peripheral circulation. The capillaries of the skin, especially of the hands and lips are dilated from vaso motor defect, giving the appearance of a congested condition. The skin is colder than normal. In many cases there is an unnatural fullness, puffiness, and color of the face, which the friends of the patient will often notice. In speaking of their condition, the remark is frequently made. "The patient seems well, but is that good flesh, isn't it bloat." The facial lines are not clearly or distinctly marked, and are often quite obliterated, and the whole aspect of the patient is that of physical inaction and want of vigor. Experience shows that it is not safe to pronounce the recovery assured, till after this condition has passed away.

Chapter six, is enriched by the addition of the section on morbid histology, which was prepared by Dr. J. Batty Tuke, who is known as a most successful investigator and observer. "The purpose is to describe as shortly and succinctly as possible, the various histological abnormalities which have been observed in the brains of persons who have died insane," and, "it may be broadly stated that morbid changes can be found in every insane brain, if the investigation is thoroughly worked out." An illustration is given of a microscopical section of a healthy brain, and several plates represent the pathological specimens. The subject is treated substantially as in the articles of Dr. Tuke, in the *Medico-Chirurgical Review*, for April, July and October, 1873. The lesions, which have been observed, are considered according as they affect the membrane, the epithelium, the blood vessels, the neuroglia, the cells, the nerve fibre, the spinal cord, the sympathetic ganglia of the

neck. The field is a comparatively new one, especially for English observers. Dr. Lockhart Clarke is the predecessor of Dr. Tuke whose labors are mainly known to the profession. In this country, the investigations made at the Utica Asylum, are the most extensive.

Dr. Tuke does not attempt to localize lesions, but observes that the convolutions of the vertex, and these immediately bounding the longitudinal fissure are the chief seats of disease; that in searching for cerebral lesions we may be guided to a very great extent by the naked-eye appearances presented by the arachnoid and pia mater; when these membranes are seen thickened or clouded, the subjacent cerebral substance is invariably diseased; these conditions are in ninety-nine cases out of a hundred, confined to the superior convolutions. Thus far most of the observations have been made in cases of chronic insanity, and have tended to prove the fact that lesions do occur. In the future, attention must be directed to detecting the changes in their early stages, and to localizing them. We consider the one article on histology, as the most important in the work, looking to the true scientific progress and advancement of psychology. This dealing with appreciably diseased states, will do more to remove the subject from the field of metaphysical speculation, than all the theories that could be presented.

The concluding chapter on the treatment of insanity, is full and gives in detail all the remedial and moral measures ordinarily employed. The new remedies with which the pharmacopœia has been enriched, and the recent applications of well known drugs, receive due attention. The hypodermic injection of morphia, chloral, bromide of potassium, ergot of rye, the calabar bean, conium, electricity and the turkish bath, are added to the list of the former editions. In estimating their

value, and in the recommendations for their use, the experience and observations of the best authorities, and of those who have made special investigations of their qualities and powers have been quoted. The whole subject of treatment has been brought down to the present time, and furnishes the practitioner the most complete *armamentarium*, which can be found outside of the current literature of the medical journals.

The work as now offered, can hardly claim the title of a Manual of Psychological Medicine, as it is rather a text book upon the subject, and will be consulted as such.

The chapters on "Forms of Insanity," and "Diagnosis of Insanity," might well have been combined. Practically the two, as here treated, form one subject. The publishers have done their work well, the type is good and clear, and the impressions and coloring of the plates representing microscopic sections of brain tissue are rarely equaled. We can heartily commend the work. It is full, comprehensive, and in the main we can endorse its statements.

A Manual of Midwifery, including the Pathology of Pregnancy and the Puerperal State. Dr. KARL SCHROEDER. Translated from the Third German Edition, by CHARLES H. CARTER, M. D., B. S. London. D. APPLETON & Co., N. Y.: 1873.

The Manual is well adapted to meet the wants of the student and of the practitioner, as it is concise and practical. Although many subjects are briefly treated, still the general principles are fully stated.

In the chapter on the Physiology of Pregnancy, the author gives his views of the causes productive of menstruation; as these are peculiar and original, we give the substance of his remarks: The growth of the ripening Graafian follicle causes pressure on the ter-

minal extremities of nerves, imbedded in the ovarian stroma. The sum of the reflex irritation thus caused, gives periodical congestions, with the escape of an ovum into the peritoneal cavity, and hæmorrhage from the mucous membrane lining the cavity of the body of the uterus. On the management of labor, contrary to the views and teachings of many, he recommends, to avoid laceration of the perineum, support with the hand, and the directing of the foetal head toward the symphysis pubis until the occiput passes. This accords with the view and practice of some of our American instructors and accoucheurs. The Pathology of Pregnancy embraces a description of the conditions existing in the mother, which are productive of abortion, and of the diseases of the ovum. This chapter presents nothing new in the way of treatment, but shows the results of close observation and scientific investigation.

In the Pathology of Parturition, opium and its preparations, are recommended as a most efficient remedy, when the pains are feeble at the commencement of labor, and especially when they are accompanied with nervous excitement. Still more might have been said in commendation of this practice, which in the large hospitals of this country, has been adopted with the most gratifying results. In "*prolapsus funis*," although the knee-elbow position is advised to be used, no reference is made to our distinguished countryman, who first described this method of treatment. If the theory regarding puerperal fever prove correct, a great advance will have been made, in our knowledge of causation and of the proper treatment of this disease. He says, it is a septicæmia, and is produced oftenest from inoculation from without, if, however, from within, it occurs sooner after delivery. In the latter case, it is more

likely to take place, when the foetus is dead and partially decomposed, or when from pressure, gangrene is induced, and lastly when there is carcinoma. As auto-inoculation is far less common than infection from without, therefore prophylaxis is of the utmost importance, and to this end nurses ought not to be allowed to take charge of new cases, while attending a fever patient. In treatment, he reduces the temperature by cold baths and employs purgatives to eliminate the blood poison.

The treatment by purgatives and the use of mercury, to produce salivation in this disease, will not be adopted by the profession, or even favorably received.

The Doctor inclines to the theory that the puerperal convulsions are due, not to uræmia, as is generally believed, but to œdæma of the brain from the hydræmic condition of the mother. His treatment, however, does not differ essentially from that recommended by those who differ from him as regards causation, and consists mostly in the administration of morphia. We can not speak at greater length of the views of the author, or of the opinions he entertains diverse from those generally adopted.

Prof. Schroeder has had such an experience, and acquired such a reputation, that his utterances are to be received with the highest respect. He is a candid writer, and his book contains many practical things, which have not been mentioned by other authors. Any one interested in the subject can not fail to be benefited by the perusal of the work before us.

CORRESPONDENCE.

CLINICAL OBSERVATIONS ON THE DEMENTIA AND THE HEMIPLEGIA
OF SYPHILIS.*To the Editor of the American Journal of Insanity:*

In the January, 1874, issue of your valuable JOURNAL, you did me the honor of republishing, *in extenso*, an article which I contributed to the pages of *The American Journal of Syphilography and Dermatology*, in January, 1872. I recorded the two cases in that article because they illustrated what I regard as typical forms of syphilitic brain disease. My purpose in this correspondence, is merely to call the attention of your readers to the present condition of the first patient whom I have had opportunities of seeing during the past three years. He has remained perfectly well and in good condition, mentally and physically up to this time. I saw him a few days ago, and he was literally in perfect health. While the use of the large doses of the iodide of potassium administered in this case during a period of many weeks illustrates, beyond question, the specific value of the drug in this form of disease, the perfect condition of the patient at this time, (after a period of more than three years,) also illustrates the immunity from any other complications following its use in such large quantities. It has been suggested that it might, if given to the extent named, induce congestion, and subsequently organic disease of the kidneys. This case, I think, affords at least one instance of proof against any such theory. From clinical observations on a number of cases that have been under my care since the cases alluded to were reported, I have had many additional opportunities of verifying the opinions I then entertained and expressed, regarding the quantity of the iodide of potassium necessary to induce the absorption of gummy deposits in old and inveterate cases.

M. H. HENRY, M. D.

159 West 34th Street, New York, March 20, 1874.

S U M M A R Y .

NOTICES.

Dr. H. P. Stearns, a practicing physician of Hartford, Connecticut, has been appointed Superintendent of the Retreat, in place of Dr. James H. Denney, resigned.

—Dr. Daniel H. Kitchen, Assistant Physician of the New York State Lunatic Asylum, at Utica, has been appointed Superintendent of the State Emigrant Hospital for Insane, on Ward's Island, New York Harbor. He entered upon the duties of his office in February last.

—Dr. J. Welch Jones, has been elected Superintendent of the Louisiana State Lunatic Asylum, for the ensuing two years, vice Dr. L. A. Burgess.

—Dr. J. M. Lewis, resigned the position of Superintendent of the Northern Ohio Lunatic Asylum, in November last, to take effect the first of the present month. The trustees passed resolutions expressing their kindly feeling and good wishes.

—Dr. S. J. F. Miller, resigned the Superintendency of the Southern Ohio Lunatic Asylum, in June last. Dr. H. C. Rutter has since discharged the duties of the position. He has offered his resignation to take effect when his successor shall have been appointed.

—Dr. D. R. Wallace, has been appointed Superintendent of the Texas Hospital for Insane, vice, Dr. G. F. Weisselberg.

—The Board of Trustees of the Central Ohio Lunatic Asylum, has been superseded by a Board of Commissioners. At their last meeting, on the 17th of March, they passed resolutions expressing their confidence in Dr. William L. Peck, and approval of his management, both as a Medical Superintendent, and more recently Superintendent of Construction. We trust the Doctor will be continued in his former position by the new Board.

—Dr. James H. McBride, recently of the Staff of Charity Hospital, of New York, has been appointed Assistant Physician of the Northern Hospital for the Insane, at Oshkosh, Wisconsin.

—By recent action of the St Louis County Court, the office of Superintendent of the County Insane Asylum is abolished. This removes Dr. William B. Hazard and the care of the Institution devolves upon an assistant physician. Dr. J. K. Bauduy, of St. Vincent's Asylum, is employed to visit the County Asylum, *two or three times a week*. The reason given for the change, is placed on the ground of economy.

The remarks of the *St. Louis Medical and Surgical Journal*, from which we gain the above information, would, in view of this statement of the facts, seem proper and judicious. The action and the motives which gave rise to it are severely condemned.

—The State Homœopathic Asylum for the Insane, located at Middletown, Orange County, New York, will be opened for the reception of patients, on the 20th inst. The center building is completed. It is four stories in height, and besides being adapted for the residence of the officers, and general administrative purposes, accommodates about eighty women patients. One wing,

which it is hoped, will be completed in the fall, is intended to receive men patients. Dr. H. R. Stiles is the Superintendent, and Dr. Wm. Morris Butler, Assistant Physician.

HÆMATOMA AURIS.—Dr. Brown-Séquard, in a recent lecture at the Lowell Institute, in speaking of the consequence of irritation to nerves, says:

It is well known that insane patients, especially those having a peculiar inflammation of the gray matter of the brain and the *medulla oblongata*, and those attacked with what is known as general paralysis of the insane, have a slight effusion of blood in the ear and sometimes gangrene. It used to be thought that the nurses, who are unfortunately often very violent to insane patients, had been abusing them. But it is certain, also, that the trouble is frequently due to an inflammation. For there is no reason why nurses should always and especially strike them on the ear. Again, they may have had trouble in that organ when attacked; and thirdly, I have actually found that an injury of a certain part of the base of the brain produces almost invariably a hæmorrhage of the ear and gangrene after it. It occurs in several species of animals, especially in Guinea pigs. So that there is no doubt whatever in my mind that the affection of the ear in insane patients is produced by a morbid irritation of the nervous system. Great changes may also occur in the hair, in the nails, and even the color of the iris may be changed from the same cause. The nails cease to grow, as Dr. Mitchell of Philadelphia has shown, in many cases by disease of the brain. They become altered in shape, and show a series of lines, depressions, and protrusions, or ridges and canals. So that a morbid influence takes place on those parts which are only secreted from the blood. The hair may change color from one day to another under a morbid influence. It may be changed not only in color but in density and thickness, and become dry or oily. There is a morbid alteration of the skin and the cellular tissue, which is not rarely observed in cases of disease of the brain or spinal cord. It is the sloughing of a part due to injury of the nervous system. It was perfectly well known that such sloughing might appear after an injury to the nervous system, yet people often called these appearances "bed sores." But we know that pressure in people who have not an irritation of the nervous system will not produce bed sores. In cases of fracture of the

limbs, for instance, the patient lying in the position to have a pressure of the nates will not have these sores. But on the other hand—and these had led me to the view I propounded long ago, and which is now being accepted—in animals, in dogs, for instance, when lesion is produced, which causes an inflammation of the spinal cord and an inflammation of the nerves arising from it, we find a sloughing coming from a part of the sacrum, which is just the same as in man. In dogs, instead of lying down as we do on the back, the lying down is on the front part of the belly and on the thigh, while the sloughing, nevertheless, appears just where it does in man, on the nates. Therefore, it can not be construed as being caused by pressure. Besides, I have seen a sloughing appear within three days after an injury, so that even if we imagined that the poor creature had turned and pressed on the part for a time, yet the length of time would not be sufficient to produce the trouble there. Neither is the explanation that the sloughing is due to decomposed water from the patient a satisfactory one. Undoubtedly this is a powerful cause of increase of the sloughing, but not the original cause, as in those animals I refer to there was not a drop of that water irritating the back.

REVOLT OF LUNATICS.—A revolt occurred a few days ago in the Lunatic Asylum of St. Andrew's near St. Petersburg. While the keepers were at dinner the patients burst into a room where some arms were stored, and, having distributed them, prepared for resistance. The wardens endeavored to calm them by argument, but ineffectually, and some of the keepers, having approached too near, were seized and attacked with sword-cuts. Five were killed and two seriously wounded. Recourse was then had to famine; but forty-eight hours' fast was endured before the madmen laid down their arms. Six of the most furious have been placed in separate cells, with strait waistcoats on them.—*Med. Times.*

OBITUARY.—DR. FORBES WINSLOW, died, March 3d, 1874, in the 64th year of his age. He had long suffered from disease of the kidneys, though his final sick-

ness was of short duration. He was born in London, in 1810, and commenced his professional studies in New York. He continued these, after his return to London, and in 1835, became a member of the Royal College of Surgeons. In 1849, he was graduated from the Aberdeen University. He became a Fellow of the Royal College of Physicians, of Edinburgh, in 1850, and in 1859, of the London College, and in the same year, obtained the honorary degree of D. C. L. Oxon. He also held the position of President of the Medical Society of London. Dr. Winslow devoted himself to the study and practice of psychological medicine, and by continued and persistent labor in this field attained to the position of an authority upon the subject. He was best known to the profession, by the articles contributed to the Journals, and by his separate works. The following is as full an account of his literary labors as we can at present give. In 1837, he delivered the "Lettsomian Lectures on Insanity," which at that time were printed in the *Lancet*, and in 1854, collected in one volume. The same year he also published, "Physic and Physicians." In 1840, his "Anatomy on Suicide" appeared, and in 1842, "The Preservation of the Health of the Body and Mind." He also wrote "On the Plea of Insanity in Criminal Cases," and in 1843, on the "Incubation of Insanity." In 1860, appeared the work by which to the general practitioner and the public, he is best known, "Obscure Diseases of the Mind and Brain." This has passed through four editions. His next work was on "Light," as influencing life and health. In 1848, he began the publication of a *Quarterly Journal of Psychological Medicine*, which he conducted for sixteen years. This was the first Journal of its kind in England, and was succeeded by the "*Medical Critic*," which

he also edited for a time. He established the Sussex House at Hammersmith, a private asylum for the insane, and for many years gave that Institution his personal supervision. He had a large practice in diseases of the nervous system, both general, and consulting, and was frequently called as an expert in criminal cases. He gave evidence in several medico-legal cases which have since become celebrated in medical jurisprudence. In the various works of his life Dr. Winslow left a record valuable to humanity and to medical science.

—The Twenty-Eighth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane will be held at the "Maxwell House," in the city of Nashville, Tennessee, at 10 o'clock, A. M., of Tuesday, May 19th, 1874.

RESOLVED, That the Secretary, when giving notice of the time and place of the next meeting, be requested to urge on members the importance of prompt attention at the organization, and of remaining with the Association till the close of its sessions.

By standing resolution, the Trustees of the several Institutions are invited to attend the meetings of the Association.

JOHN CURWEN,

HARRISBURG, March 4, 1874.

Secretary.

